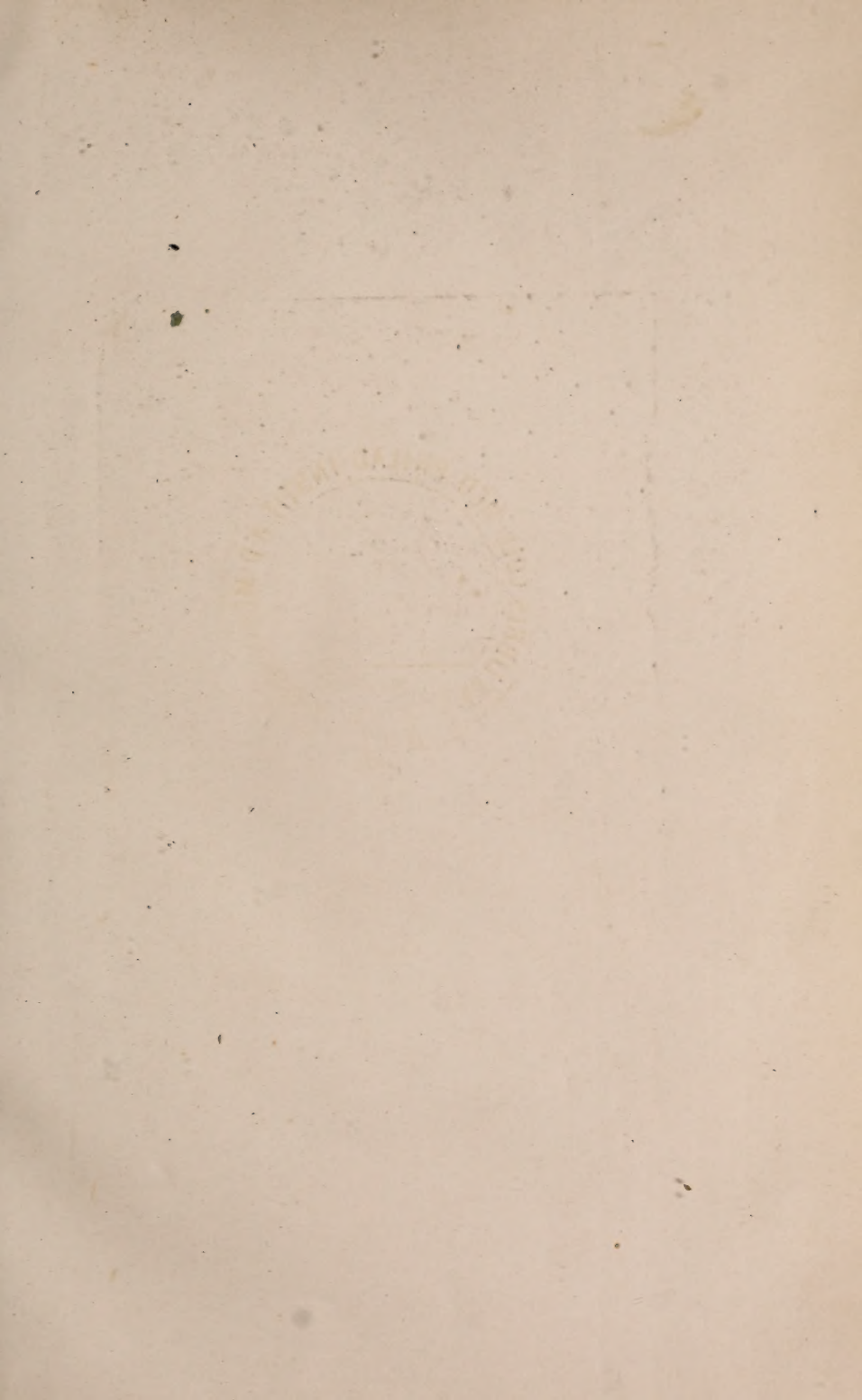





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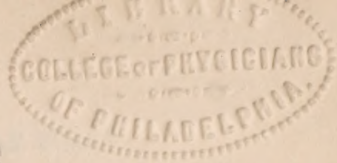
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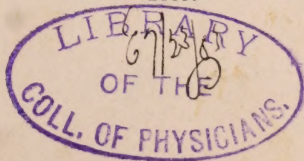


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ORIGINAL ARTICLES.

ACNE.

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DEFINITION.—Acne is an inflammatory disease of the sebaceous glands, occurring mostly about the face and back, and characterized, according to the intensity of the process, by papular, pustular or tubercular lesions.

SYMPTOMS AND COURSE.—Polymorphism is apt to be observed in most cases of acne, that is to say, the various lesions which go to make up the disease commonly co-exist. It is rare to find an acne that is purely papular or purely pustular, although one or the other form may predominate in a given case. The eruption is most frequently to be found upon the face, shoulders, chest and back; but it may exist wherever there are sebaceous glands, affecting more particularly, however, those connected with rudimentary hairs. By far the most common seat of the disease is the face, where it may be entirely confined, or conjoined with more or less eruption elsewhere. In other instances, the

shoulders and back may be the only locations attacked, and, according to my observation, when these regions are largely invaded, the face is generally spared, or involved to a very slight degree. Acne is generally complicated with more or less seborrhea and comedo. As a rule, it is a chronic affection, running its course slowly, and being kept up by the appearance, from time to time, of new crops of papules or pustules. Occasionally the process may run an acute course; but the essential characteristics of an acne are its chronicity and constant tendency to relapse. Thus the patient's face, for instance, may be almost clear for several weeks, when within a comparatively few days the parts are again covered with the eruption. This is particularly true in women, the menstrual epochs seeming to have much influence in the redevelopment of the lesions. Subjective symptoms are not very marked. The individual lesions may be painful upon pressure, but otherwise give rise to little more than a sensation of soreness. On the forehead, however, the pain is sometimes quite severe. Itching, if it exists at all, is trivial. The number of acne lesions present in a given case may vary from two or three to several dozens.

For practical purposes it is perhaps well to recognize two clinical varieties of acne, viz.: acne simplex, and acne indurata. The numerous other divisions of acne, besides being unscientific, inasmuch as they group under one term diverse pathological states, are perplexing, both in a diagnostic and therapeutic way.

Acne simplex.—This form of acne is usually made up of papules, papulo-pustules and pustules. In some cases, small, miliary-sized, red pimples (acne papulosa) predominate. They are mostly found upon the forehead, are somewhat conical in shape, and present at their apices minute yellowish or blackish points, which correspond to the ducts of the sebaceous glands. Sometimes the pimples are more or less scattered over the face, but do not attain much elevation, or, as the patient expresses it, are more “under the

skin," and are appreciable by touch more than by sight. The more frequent variety of acne simplex, however, is the papulo-pustular, with the pustules in excess (acne pustulosa). The pustules are freely dispersed over the invaded surface, somewhat globular in shape, and are seated upon an inflamed base. They vary in size from a pin-head to a split-pea. In coarse-grained, muddy skins suppuration may be abundant; on the other hand, it may be very slight. In acne simplex the evolution of the pustule is rapid. The pustule may either rupture and discharge its contents, or undergo absorption and desiccation.

Acne indurata.—Pathologically acne indurata differs in no way from the more ordinary variety, except in the extent of the inflammatory process. As a matter of fact, it is not easy to dissociate them, since their lesions not uncommonly co-exist. It is only a question of clinical convenience. In acne indurata the inflammation is deeper seated, and the subcutaneous connective tissue is apt to be involved, and there may be considerable swelling of the parts, and even quite large cutaneous abscesses. The tubercles of the indurated form are usually slow in development, and run a sluggish, indolent course; in fact, a hard, inflamed nodule may exist many days before suppuration can be detected. When the tubercles are large and abundant, the intervening skin becomes much congested and thickened. If the suppuration is extensive, indelible cicatrices result, which upon the face look not unlike the pits of variola, although not usually so uniform in size and shape. Acne scars upon the back are generally small, smooth and quite white.

The tubercles of acne indurata have more of a violaceous hue than the lesions of the papular and pustular varieties, and in those instances where the process does not run on into suppuration, there remain persistent livid nodules.

Acne does not attack children. It is most common from the age of puberty up to the age of twenty-four or thereabouts, although it may occur, and frequently does, in more mature years. Acne may persist for a lifetime, but the vast

majority of cases tend to spontaneous recovery, at various times, within the period stated above.

The so-called *acne artificialis*, due to the ingestion or topical application of certain substances. e. g., preparations of iodine, bromine, tar, etc., calls for no especial description. The eruption may be slight or exceedingly severe, and in the case of tar a small, black point may be detected at the center of the pustule.

ETIOLOGY AND PATHOLOGY.—Next to eczema, acne is one of the most frequent diseases of the skin; indeed, if all persons affected with acne were to seek the aid of a physician, there is no question that it would occupy the first place. Acne is found under all conditions of life, in all climates, and in both sexes equally. I am inclined to think that people with light skins suffer from it more frequently than brunettes. Great difference of opinion exists among dermatologists as to the causes of acne. While some, with Hebra, fail to find any especial and unequivocal cause or causes for it, others ascribe its existence to the influence of the most diverse states and conditions of the system, e. g., puberty, excessive venery, indulgence in stimulating foods and drinks, scrofula, tuberculosis, menstrual irregularities, gastro-intestinal derangements, etc., etc. Whatever is the exact truth about the matter, it is indisputable that most cases of acne develop about the period of puberty, and that we find menstrual and gastro-intestinal derangements as frequent accompaniments of the disease. It is, therefore, reasonable to assume that these conditions stand in some causal relation to acne, in spite of the fact that in a certain proportion of cases the etiological factor is not appreciable to the closest scrutiny. There is no proof, beyond mere surmise, that excessive venery, any more than continence, is responsible for acne. As stated above, we know that certain substances when taken internally or applied locally produce inflammatory affections of the glands. I have reason to believe that irritating cosmetics play no small part in

the causation of acne ; for some of the severest cases I have witnessed have occurred in theatrical people. I do not regard the presence of the *acarus folliculorum* as of any etiological importance, since the parasite may be found in the sebaceous secretions of everyone.

The term acne has been made to include nearly all the diseases of the sebaceous glands, whether pathologically related or not, such as seborrhea, comedo, milium and molluscum, besides rosacea, in which the acne is merely a complication. While some of these conditions may be more or less associated in the same case, particularly hypersecretion or retention of sebum, acne is to be looked upon as a distinctly inflammatory affection, involving the structures of the sebaceous glands and the contiguous tissues. It is believed that retention of sebum in the excretory duct acts as an irritating foreign body, which excites inflammatory hyperemia, followed by exudation into and about the glands. According to the intensity of the inflammatory process will there be more or less exudation, suppuration and destruction of the gland and follicle, with consequent cicatrization.

DIAGNOSIS.—Acne is to be recognized by its chronicity, its limitation to certain regions of the body, as the face and chest and back, the relapsing nature of the malady, the character of the lesions, and their correspondence to the sebaceous follicles. A papulo-pustular or tubercular syphiloderm may strongly simulate an acne, but the history, course and concomitants of the two diseases would be quite different, taken in connection with the more general diffusion of the earlier syphiloderm, and the tendency to ulceration exhibited by the later. Acne is frequently mistaken for small-pox, and occasionally *vice versa* ; but a most casual acquaintance with the course and symptoms of variola would save from this error. It is only necessary to call attention to the fact that papular eczema and disseminated lupus nodules should be carefully differentiated.

TREATMENT.—The therapeutics of acne may be appropri-

ately divided into two classes, namely: *internal* and *local*. Both local and constitutional measures are called for in most cases of acne; but it sometimes happens that either may be successfully used to the exclusion of the other. I do not hesitate to say that the largest number of cases do best under a purely local therapeusis, and if it should so happen that I were of necessity compelled to exclusively employ any one form of medication, my predilection would be for local measures. Fortunately, however, we are not so restricted in our operations, and I am sure that no wise physician would hesitate to remove a complication, whether it be looked on as a cause, coincidence or result.

Internal Treatment.—There are a number of remedies which, given internally, are presumed to have more or less of a special influence on the development and course of acne. Among them may be mentioned arsenic, the sulphides, mercury, glycerine and the alkalies. In a general way, it may be said that arsenic is most beneficial in papular acne, the sulphides in the pustular form, mercury in cases where there is a good deal of infiltration, glycerine in punctate acne, and alkalies where much irritability and hyperemia of the parts are manifested. There is no doubt that given in appropriate cases some of these remedies are capable of much good. Arsenic is usually administered in the form of Fowler's solution, in the dose of from two to five minims, to be taken directly after meals. I think it is certain that the sulphides, particularly the sulphide of calcium, show the best results in comparatively small doses, such, for instance, as the one-tenth, one twentieth or one fortieth of a grain, given four or five times a day. I can see no especial necessity for mercury, for arsenic may be appropriately given in the cases in which it is said to be demanded.

Favorable results have been obtained by the use of glycerine at the hands of some physicians; but I suspect that it has done good more by virtue of its anti-dyspeptic properties than by any especial action on the skin. Pro-

longed courses of the alkalies are much praised by R. W. Taylor, in cases characterized by hyperemia and irritability of the skin. Of these various special remedies, I think that the sulphide of calcium has proved most beneficial in my experience. I rarely prescribe arsenic; for I am of opinion that in those cases in which arsenic is indicated—cases of a chronic character in which we desire to promote tissue changes—the same ends may be accomplished in a better and more rapid way by local measures. The same principle is illustrated in the treatment of psoriasis. Arsenic will, in time, make a psoriasis disappear; but chrysophanic acid, for instance, will do the same thing in a much shorter time. The sulphide of calcium is very useful in pustular acne, as it seems to control the tendency to suppuration, something that could not be effected by local measures.

The internal treatment of the morbid conditions which are so frequently associated with acne is very important; for whether we look upon them as causes or coincidences, no one can dispute the advantage of removing them if practicable. In some instances iron, quinine, strychnia and the mineral acids are demanded. Acne quite commonly attacks young people of weakly habits, who have greasy skins and suffer from cold hands and feet, sometimes, no doubt, with a strong tendency to tuberculosis. Cod liver oil and the malt extracts do well under such circumstances. A favorite formula with me is the following:

R. Ol. morrhue,	- - -	f ʒiv.
Pancreatin. saccharat.,	- - -	ʒi.
Pulv. acaciæ,	- - -	q. s.
Glyceriti hypophosphit.,		
Syr. calcii lactophosphat.,		
Aquæ,	- - -	āā f ʒ iv.
Ol. gaultheriæ	- - -	gtt. xxx.

M. et ft. emulsio.

S. Tablespoonful three times a day after meals

The persistent dyspepsia which attends upon so many cases of acne should be treated thoroughly and intelligently according to the kind and degree of the affection present. Aside from the merely medicinal treatment, the management of the diet requires especial care. Stimulating foods and drinks should be strictly prohibited, also hot breads and pastry of all kinds. Oatmeal I regard as particularly obnoxious. Tea and coffee are to be regarded as highly prejudicial.

Some degree of constipation is met with in a large proportion of cases of acne seen in practice. Under ordinary circumstances its treatment by teaspoonful doses of common table salt in a large goblet of cold water, taken a half hour before breakfast, is very effectual. In addition, however, the patient should be instructed to solicit an action from the bowels at exactly the same hour every day. When the bowels are unusually sluggish the pills of iron and aloes (aqueous ext. aloes, one grain; and sulphate of iron two grains—for one pill) recommended by Spender will be found to be valuable. One such pill should be taken three times in the day at first, but afterwards the dose should be rapidly diminished until one every few nights will be found sufficient. I think the routine administration of decided purgatives and the fashionable purgative mineral waters is bad practice.

It is hardly necessary to add that the ordinary rules of hygiene should be strictly enforced, but regular exercise and daily ablutions with cold water, at least to the waist, and vigorous frictions with a coarse towel, are to be especially mentioned. In a prophylactic way, the use of some good soap, Pear's for instance, is to be insisted on as an habitual accompaniment of the toilet.

The treatment of artificial acne does not differ essentially from the common forms. Weir Mitchell and others recommend arsenic as a prophylactic when giving the bromides. Dr. Seguin states that in the aggravated variety due to the bromides, the sulphide of calcium acts better

than the arsenic. Dr. Dyer Duckworth uses local treatment (sulph. precip., ʒii. ; spt. camphor., f ʒi. ; liq. calcis., f ʒi.) with success in bromic acne.

Local Treatment.—The judicious local treatment of acne is of the greatest importance. According to circumstances, it may be either of a soothing or of a stimulating character.

In those cases where there is considerable congestion and irritability of the parts soothing ointments and lotions are indicated. Nothing is better for this purpose than the oxide of zinc ointment made with the vaseline base, or a lotion of subnitrate of bismuth, two drams; dilute hydrocyanic acid, half a dram; glycerine, one dram, and rose water enough to make four ounces. In nearly all cases there are certain general measures which require careful attention, viz., the free use of soap, the expression of comedones, application of hot water and free incisions into the acne lesions.

Except in instances where there is a great amount of inflammation present, whether as the result of the natural course of the disease or from the effect of treatment, it is important to direct that soaping and friction should be resorted to every morning. All comedones should be thoroughly but gently expressed with a watch key or other suitable instrument. The application of hot water, and incisions into the lesions, go hand in hand. I am in the habit of directing the patient to apply cloths, wrung out in water as hot as can be borne, to the affected parts for five minutes once or twice a day. At the same time all pustules and papules should be stabbed with a lancet or large needle and allowed to bleed freely. The incisions should not be confined to the pustules, but as soon as a papule makes its appearance it should be attacked at once, since its course is thereby materially shortened.

The stimulating plan of treatment is indicated in the vast majority of cases of acne from the beginning. This is generally accomplished by the use of powders, lotions, or ointments, the bases of which are mainly sulphur and

mercury. These various remedies are best applied at night. The preparations of sulphur undoubtedly give the best results. Precipitated sulphur, applied freely with a powder puff, is often of value.

Any of the following lotions may be used with good effect :

R. Sulphuris loti., - - - ʒiij.
 Spt. camphoræ, - - - f ʒiij.
 Sodæ biborat., - - - ʒij.
 Glycerinæ, - - - f ʒvi.
 Aquæ, - - - ad f ʒiv.

—Taylor.

M. S. Shake the bottle and apply freely.

R. Sulphuris precipitati,
 Potassii bicarbonati,
 Glycerinæ,
 Aquæ laurocerasi,
 Spt. vini Gallici, - - - āā ʒij

—Hebra.

M. S. Apply at night, and wash off in the morning with a lotion made by pouring hot water over bruised almonds, and used lukewarm.

R. Hydrarg. bichloridi, - - gr. i.
 Tr. benzoini, - - fl. ʒii.
 Mist. amygdalæ, - - fl. ʒvi.

M. S. Apply lukewarm.

I frequently order this lotion to be mopped on in the morning, after thorough inunction of a sulphur salve the preceding night.

Without doubt one of the most efficacious methods of treating the largest number of cases of acne is by the Vleminckx's solution:

R. Calcis - - - ʒss.
 Sulphuris sublimati, - ʒi.
 Aquæ, - - - fl. ʒx.
 Coque, ad. fl. ʒvi., deinde filtra.

S. For external use.

This solution is recommended by Neumann for acne of the chest and back, presumably without dilution, as he says nothing to the contrary. But it is to Dr. C. Heitzmann, of New York, that we are indebted for directions as to its systematic employment. Dr. Heitzmann directs that before the use of the solution is commenced, some time—in severe cases several weeks—should be consumed in getting rid of flesh-worms by inunctions with strong lather of castile or solutions of green soap; also that during the treatment the emptying of comedones must be kept up, and continued from time to time, if we wish to prevent relapses. All pustules should be incised.

The preparatory treatment having been accomplished, the patient is ordered to commence with the solution in the strength of one tablespoonful to five of water; after three or four days he will take one to four and a half of water; then one to four, and so on with one-half tablespoonful of water less every fourth night until the remedy comes to be used pure. The solution is to be rubbed into the face, and left on over night; next morning the parts are washed with soap and water. The affected region should not be manipulated too harshly at first, but if much dermatitis is set up, a little cold cream may be smeared on during the day, or else the applications may be intermitted for a short while. I can from considerable experience speak in very positive terms of the real value of Dr. Heitzmann's method.

Solutions of green soap in cologne, in equal parts, rubbed in night and morning, are also of much benefit.

Ointments are very useful in the treatment of acne. They should be thoroughly worked into the skin. I have seen favorable results follow the use of the English hypochloride of sulphur:

R.	Sulphur. hypochloridi,	-	-	3i.
	Ung. petrolei,	-	-	3i.
	Ol. rosæ,	-	-	q. s.

M. S. Rub into the skin thoroughly at night.

The following is a very acceptable preparation :

R.	Sulphur. precipitati,	-	-	3i.
	Glycerinæ,	-	-	3ss.
	Adipis benzoati,	-	-	3i.
	Ol. rosæ,	-	-	gtt. iii.

—*Duhring.*

M. Sig. Rub in thoroughly at night.

Ointments of the various mercurial preparations have been advised for cases needing active stimulation, e. g., protiodide of mercury (gr. v-x ad. 3i.) and the white precipitate (gr. xx-xxx ad. 3i.).

In acne indurata, in which the skin is much infiltrated, Neumann recommends the mercurial plaster.

Hutchinson touches lesions as they appear with a small quantity of the acid nitrate of mercury, by means of a fine stick or glass rod. Dr. W. G. Smith, of Dublin, prefers the pure carbolic acid for this purpose, afterwards covering the spot with a film of collodion. The operator should always have a bit of blotting paper at hand to absorb any superfluous acid. Satterlee and Piffard report well of the Faradic current. The positive pole is applied to the nape of the neck, and the negative to the affected parts. The applications are to be kept up for ten or fifteen minutes, at intervals of a few days. Bartholow speaks in high terms of the galvanic current, a few cells applied to the part by sponge electrodes, without particular reference to the poles. Both these forms of electricity are useful adjuvants, but cannot be compared in their results to other forms of treatment. Frictions with fine sand (Ellinger) and scraping the acne lesions with the dermal curette (H. Hebra and Wigglesworth) have also been practiced with asserted advantage. The commercial "medicated" soaps are usually unreliable.

The list of remedies for the internal and local treatment of acne could be almost indefinitely extended; but more than enough has been given to meet the varying conditions presented by the disease. While it is a well established

fact in dermatological practice, that where a lotion fails to afford relief an ointment may succeed, and *vice versa*, it is nevertheless true that in employing any given medicinal agent we should limit our selection to the exact indication presented by the case in hand. So in acne the success of the treatment will depend greatly upon the judgment exercised as to whether we wish to soothe or stimulate, and not so much as to the particular combination of drugs or other means prescribed. The whole question of the management of acne may be summoned up as follows:

- 1st. General hygiene, baths, exercise, free use of soap and appropriate diet.
2. Appropriate internal medication.
3. Expression of comedones, incisions of papules, pustules and tubercles.
4. Soothing measures when necessary, such as mild unguents, lotions and applications of hot water.
5. Stimulating remedies.

PROGNOSIS. The prognosis of acne is essentially favorable, that is to say, it is in no way dangerous to life, and in most cases tends to spontaneous recovery in the course of months or years. It rarely persists through life, but in cases of any intensity the region attacked is apt to be seriously disfigured by cicatrices. The removal of existing lesions is not usually difficult; the prevention of relapses will sometimes tax the ingenuity of the physician to the utmost. Strange as it may seem, severe cases are more manageable than light ones; but taken all in all the prognosis may be looked upon as good.

CIGARETTE SMOKING.

BY J. C. MULHALL, M. D., *Physician to the Throat Department, St. Louis Medical College Dispensary.*

THE magnitude of this vice is ample apology for the appearance of the least pretentious article bearing on it; and I may add, by way of securing some attention,

that I was myself for fifteen years addicted to it, and have never lost any opportunity of examining the nose, throat and windpipe of a cigarette smoker.

First, a word with regard to tobacco in general. The newspapers, in recording the death of some centenarian, by way of humor add, that he would no doubt have lived much longer had it not been for the tobacco habit. On the other hand, in interviewing some equally old person, the fact is emphasized that he has never used tobacco.

The reader in the first instance is at once assured, and grows careless about excess; whilst in the latter he is, for the time, ill at ease, resigns the habit, uses a milder cigar, or consults his physician. The truth is that, as in most other habits, no general law in this is deducible; and every individual is subject to a law, based on experience, for himself. If general laws could be formulated, taking common consent as to what excess and moderation mean, they might be written as follows: Tobacco is harmful to 99 per cent. addicted to its excessive use, to 50 per cent. addicted to moderate use, and to 10 per cent. using it in the smallest quantity. The train of symptoms of tobacco poisoning is a long one, and it is the duty of every individual to know them, and thus armed, he may act accordingly.

I shall not enumerate these, but draw attention to the title of this article.

To commence with, all habitual cigarette smokers *inhale*. I was once asked by a well-known physiologist if I *swallowed* the smoke, a feat I defy any one to accomplish. The contact of smoke, or any fume or vapor, with the pharynx does not excite the reflex act of swallowing. By a powerful voluntary effort smoke may be forced to the depth of an inch or two into the gullet, but no farther. The smoke therefore passes into the respiratory passages, and it is this one and sole fact which is at once the pleasure and vice of cigarette smoking.

If the smoker did not very sensibly *feel the contact of the smoke with his larynx and windpipe* his pleasure

would not exist. Certain kinds of tobacco do not cause this subjective irritation, and are therefore avoided, as are also those kinds which irritate too much. Tobacco in the form of a cigar, or in a pipe, belongs to this latter class, and is thus seldom used. This pleasurable irritation must therefore be of a certain grade, and the habitué chooses his tobacco and paper, or ready-made cigarette, accordingly. I repeat that the pleasure of cigarette smoking is found in inhalation, and were it not so cigarettes would almost cease to exist, for smoked in the ordinary way they soon become insipid, and are thus only used by smokers *en amateur*.

To what depth is the smoke inhaled? I have often with the laryngoscope examined a friend immediately after an inhalation, directing him not to expire; but though the smoke is readily seen in the windpipe, its volume prevents deep inspection, so that we are limited to the sensations experienced by the subject, and from these, produced with a strong tobacco in myself, I am satisfied that the smoke proceeds as far as about an inch into each bronchus, coming therefore into contact with the four "cough spots"—the bifurcation of the trachea, its posterior wall, the under surface of the vocal cords, and the inter-arytenoid commissure. A significant fact to be remembered is, that the smoke thus comes in contact with at least four times the extent of mucous membrane that it does in ordinary smoking, since in the latter method the mouth alone is the smoke chamber, whilst in the former there is added the lower third of the pharynx, the larynx and the trachea; there is consequently four times as much surface, all absorbent, exposed to tobacco fumes, and hence four times as much nicotine absorbed. It will therefore require but one-fourth of the amount of tobacco to effect the desired satisfaction, that would be required in the same subject by mouth smoking.

I have examined the respiratory passages of cigarette smokers in many parts of the world, the kinds of ciga-

rettes correspondingly differing—of those who used only the purest Turkish tobacco and rice paper; of those who used the vilest paper and tobacco—and I have concluded, inasmuch as I always found local changes, that inhalation is the chief evil, though my observations also lead me to state that the morbid signs are more marked in the smokers of cheap cigarettes. I may here remark that all the cigarettes manufactured in this country belong to the class that is cheap and vile.

The constitutional effects of this vice are not more serious, I think, than that of tobacco as ordinarily used, except that as there is economy of time and nicotine, much more tobacco is apt to be consumed.

I have purposely used the commonest tissue paper, in order to observe in myself what effects any departure from pure rice paper might cause, but I could never smoke more than two cigarettes thus wrapped, on account of nausea and salivation. I have also known a number of friends who could not use certain brands of cigarette paper for the same reason. This I think sufficient to prove that the quality of the paper must be taken into consideration when discussing the question.

The local effects consist in chronic congestions of those parts with which the inhaled smoke comes in contact—the windpipe, larynx, pharynx, orifices of Eustachian tubes and posterior nares. Given a chronic inflammation of any one of these parts, we may, from contiguity of surface, have the same condition of that surface: such as, from chronic tracheitis, a chronic bronchitis; from chronic nasopharyngitis, a middle ear hyperplasia, etc., etc. I have not found that these congestions differ from those produced by other causes. The pharyngitis, for instance, may be granular, or dry, or hyperplastic; the laryngitis; moist or dry. It is surprising how quickly these various conditions improve with the withdrawal of the cause, most of them indeed totally recovering without other treatment. One of my patients, who could not hear a watch tick farther than

two inches, had in two weeks so improved that he could hear it at a distance of ten inches.

Every old cigarette smoker has a cough, which in the weakly inclined in the winter is apt to be a troublesome and sometimes serious affair. It is easily understood that to the singer's voice such a practice must be fatal, but so tenacious is this vice that I have known several singers to abandon all claims to voice rather than resign the habit. Some degree of obstructive nasal catarrh is often present, with consequent mouth breathing, a condition fatal to the integrity of the respiratory apparatus.

These diseased conditions are most marked in the growing youth, since their tissue resistance is feebler.

Nine-tenths of cigarette smokers are between the ages of six and twenty-one, for two reasons. First, because the vice is cheap enough to be within reach of the poorest urchin; and secondly, because the small and mild looking cigarette neither promises nor produces the deathly nausea of the first cigar. At first these boys only practice mouth-smoking, but they invariably soon learn to inhale, as I have many times taken the trouble to ascertain, and then farewell to all hopes of real manhood, mind or body, for they have contracted the worst method of using that which arrests tissue development in the young, namely, tobacco.

To sum up, it may be therefore said:

1. The cigarette is an evil, because its mildness and cheapness *induce* the habit of smoking in the young.
 2. Because the enormous demand for it has led to the production of an adulterated article.
 3. Because it establishes the habit of inhalation of smoke and consequent injury to the respiratory organs.
 4. Because, being more economical of time and money than the pipe or cigar, more nicotine is apt to be consumed.
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MORPHIA AND THE MORPHIA HABIT.

BY T. L. PAPIN, M. D., ST. LOUIS.

[Read before the St. Louis Obstetrical Society, Oct. 19, 1882.]

I WISH to call the attention of this society to the use of hypodermic injections of morphine, or of morphine by the mouth in uterine colic, whether caused by pregnancy or dysmenorrhea. I do not know how better I can explain my fears of the frequent and indiscriminate use of this most potent remedy—so potent for good and for evil—than by giving the history of two cases that have come under my observation—one of habitual hypodermic injection, one of morphine taking by the mouth.

CASE I.—Many years ago Mrs. B—, aged 21, became pregnant for the first time; none of the usual symptoms manifested themselves, but instead she was attacked with a violent uterine colic while dressing for the opera. I was sent for in a hurry, but before I could reach her she had become quite delirious from excessive pain. Could give me no rational account of herself or pain, but insisted that her husband was skating over her abdomen, was cutting her with his sharp skates, etc. She talked quietly about it for a moment or two, and then would double up and cry out most piteously. I must say that for a while I was completely at a loss for a cause of this hysterical manifestation of uterine colic. There was no pain on pressure; no fever. Large mustard plasters, paregoric, morphine, whiskey, hot poultices were each and all tried, but only gave partial relief.

When I first saw her it was about 8 P. M. I remained with her until 5 A. M., when I requested that Dr. Linton should be sent for. Just then I began to suspect the true cause of this apparent unmanageable dysmenorrhea—pregnancy. Dr. Linton soon became deeply interested in the case, but would not suggest any new remedy until Dr. Pal-

len, the elder, had also been called in consultation. Morphia and paregoric by the mouth I had already given in what we all considered poisonous doses; of whiskey she had taken over a pint, and yet no very great effect was apparent. Dr. Pallen suggested chloroform, as a palliative, until something else could be done. Satisfied with my diagnosis of pregnancy as the cause determinant, he very urgently advised abortion. This I positively refused to do, for then, as now, I looked on this operation as legal murder, but I tried chloroform. An old drunkard who had been deprived of his toddy for 48 hours to a week could not have manifested more pleasure than she did after taking the first half dozen inhalations. It relieved her, but she wanted it all the time.

I was worn out with my long vigil, and trusting her and my chloroform bottle to a young professional brother, I went home to sleep and rest my aching brain. The next morning at daylight I resumed my place by her bed-side. To my horror I found that she had already consumed by inhalation 32 ounces of Squibb's chloroform in the space of about 12 hours. I explained to her husband and other relatives the danger of this course, and requested to be left alone with her. I locked the door and took my stand by her bed, determined to give her not another whiff. It was well for me that I was convinced that to continue chloroform would kill her, for in all my life I never was entreated and scolded, begged and abused in turn by a woman as on this occasion. Until 5 P. M. I stood by her side, kindly but firmly refusing, often being obliged to use force to keep her in bed; at last, exhausted, she fell asleep, and a few hours afterwards awoke vomiting, but well of the dreadful colic, and, better yet, cured of that more dreadful desire for chloroform. In six weeks she accidentally fell and miscarried.

Her second pregnancy was ushered in by pains similar to the first—horrible, horrible, beyond anything I had ever witnessed. Even now, when years, long years, have

passed, and she is sleeping the sleep of death, I can still hear her agonizing screams, and am still startled by them.

This time I called in consultation a gentleman, whose name escapes me, who, I felt, would and could suggest some new plan if anything new had come to light of late. Hypodermic injections of morphia were then very fashionable, as now—too fashionable. I had a theoretical knowledge of this wonderful mode of administering morphia. I had read about it, had seen it used on two occasions at the hospital, had marvelled at its wondrous and prompt effect, but dreaded its use. This, however, was not a time to indulge in preconceived prejudices. My friend with a hard German name advised it. I was left with what to me appeared (and eventually proved to be) the only choice of two evils: either morphia, hypodermically administered, or to go over the old trial of the year before. The very thought made me shudder. I gave her an hypodermic injection of about one-half grain of the sulphate of morphia. In two minutes pain was all gone, and as she expressed it, "I feel as tho' I were in heaven." I almost felt as near the good place as she did, for I was indeed very tired; my whole nervous system relaxed; another turn of the screw and I would have given way to hysterics. No fish ever took to water more kindly, more willingly, more joyfully than did my patient to hypodermic injections. As our worthy president would aptly express it, "she was a lovely young woman;" and it was very hard to refuse her anything, much less would one refuse her relief from pain.

Day by day this morphine business went on, until I became thoroughly convinced that I was killing my patient by foolishly giving way to her acquired bad habit, for the uterine colic had long since disappeared. I finally hit upon a trick, which that time, anyhow, succeeded admirably. I gave her in charge two 8 oz. bottles, one of Magendie's solution, and one of distilled water. I carried the syringe in my pocket. Night and morning I administered a full syringe of the solution—about a grain—and then, when not

observed or suspected by her, I filled the morphine bottle from the other containing distilled water, she all the time impressed with the belief that both bottles contained morphine. This I purposely allowed her to believe, and, seeing the distilled water bottle gradually emptying, she never suspected the cheat. It took me a long time to fill one bottle from the other and then to empty the second bottle, but before I got through with this last, at her own request we stopped the injections.

CASE II.—I have had very many patients take morphia, laudanum or gum opium by the mouth. I have had one who habitually smoked opium ; but of all marvellous cases, one to which Dr. Yarnall called my attention, and which I saw with him on a very late occasion, exceeds belief.

Mrs. W.'s history and cause of uterine colic is almost identical with the one of Mrs. B., which I have attempted to describe. Mrs. W. married at the early age of 16 years. She gave birth to her first two children without any apparent unusual complication. At 20 years she conceived with her third child ; the only manifestation was horrible uterine colic, intermittent or interrupted, as in dysmenorrhea or labor, only worse, as she attests, "than her first two labors put together in one pain." The family physician gave her a little syrup, which acted like a charm. She never felt better. The bottle emptied, her husband had it refilled ; again emptied, again filled ; she grew fleshy, rosy, young and handsome. At last the druggist, who observed that this little bottle came more frequently than at first to be replenished, asked Mr. W. if he knew what was in that syrup ? No ! Morphine, said the druggist. But the knowledge came too late ; the patient was already a slave to the unfortunate habit and did not have the will-power to give it up.

Let me cut short this already too long paper. The habit is fixed ; the quantity was rapidly increased until it now exceeds 60 gr. per day. It is now ten years since this unfortunate lady acquired the habit, thanks to her thoughtless

physician, who imprudently left it with her to continue the use of this remedy. She appears well, looks well; has given birth to two children since her morphine habit was acquired—both fine looking twelve pounders, both marvels of physical and brain development, at birth looking and acting as though they were five or six months old—both manifesting nervous perturbations a few hours after birth that could only be quieted by that most harmless (?) drug, Mrs. Winslow's soothing syrup, and that too in doses of from 1 to 2 teaspoonfuls; both lived on opium, and opium only kept them alive for 6 or 8 days; both died at that early age opium eaters!

In looking back over long years of practice, and many of them a very full practice, I have often wondered if after all opium and its many salts were not a curse rather than a blessing to humanity. I have at last come to the conclusion that in itself, and properly and prudently used, opium is the greatest possible blessing we possess for the relief of physical pain; that perverted appetites often lead men and women to "try the heaven-born feeling" which opium gives, little dreaming of the hell and devil they are selling themselves to; that doctors, more frequently than we are willing to acknowledge it even to ourselves, are by their careless and imprudent and indiscriminate use of this drug among their patients, responsible for the habits from which they afterwards find it impossible to wean the victims they themselves have led to this hell on earth.

But suppose your patient is habituated to morphia, either hypodermically or by the mouth, how will you cure him? Let him quit short, absolutely and entirely. If he have the will power, trust him; if he cheats, lock him up; put a Hercules over him as nurse—one that you can trust to carry out your orders. All substitutes are simply a prolongation of the agony that he must go through. No; the thing you may use to advantage is the warm, or even only hot, bath, frequently repeated. The patient who quits morphia after a long-established habit suffers from in-

somnia, diarrhea, nausea, vomiting, aching all over and debility to such a degree that it is a marvel how he lives. Not only can he not sleep, but with difficulty can he keep his eyes closed. Oh, the long, terrible nights! A moment is an hour, a minute a whole night, an hour a century; all this suffering will last five to ten days. No medicine will do any good; the stomach rejects everything, even a mouthful of cold water. The patient must be allowed full liberty to roam about his or her room, about the house, in or out of bed, on the lounge, on the floor, no matter what, *only no morphine!* At last, after "several centuries of torture," as the patient expresses it, nature, our master in the art of curing, comes to the poor patient's relief. An hour of sleep is vouchsafed him or her. Then the stomach will bear a few teaspoonfuls of cream or broth. How wistfully he will ask you "if *you* think he'll sleep again to-night," or "if he'll be able to take food to-morrow?" Then comes a little fever—not much, but very persistent—the diarrhea still is troublesome, probably from the same cause that brings on the fever, an irritable or inflamed mucous membrane of the alimentary canal. Little by little, and *without medicine or substitutes*, nature accomplishes the cure. This terrible treatment of "will control" I am sure, after some considerable experience, is not only the best, but the only safe one—to cure, and to secure the patient from relapse. *Ora e semper.*

THE NERVOUS EXHAUSTION OF FEVERS.

BY JNO. W. HOYT, M. D., OLNEY, ILL.

[Read before the "Centennial Medical Society," at Newton, Ills., Nov. 9, 1882.]

THE appearance of a paper in the ST. LOUIS COURIER OF MEDICINE for July, 1881, read before the Missouri State Medical Association by Willis P. King, M. D., of Seda-

lia, Missouri, upon "Fever and the Cooling Bath," enlisted my interest anew in the prosecution of the study of the "nervous exhaustion of continued fevers." Since that time especially—some fifteen months—I have had to do with a form of fever, the exact classification of which I, as also my co-workers in this locality, have found quite difficult.

The third class of cases described by W. W. Johnston, M. D., in his classification of "the forms of continued fever which prevail in Washington," and published in the *Am. Jour. of the Med. Sciences* for Oct., 1882, is a typical history of the fever I mention as occurring here, with the exception that in no case have I heard of a death so sudden as to excite suspicion of *accidents*. Many of these cases present no appreciable lesions at any time, and recovery is the rule in from four to six weeks, convalescence being slow. But, if fatal accidents in the course of so mild a form of fever are to be, as Dr. Johnston implies, the guide in determining the true nature of this fever, it tends to confirm the opinion prevalent with us that this is not "a mild form of typhoid fever." Accidents are unknown, yet I think too with the Washington gentleman that there is "a positive error in affixing the term 'malarial' to all negative and doubtful cases of fever."

The exceptional cases—and they are not a few—to recovery in from four to six weeks, are found to occur in persons cursed with a highly sensitive organization. It is no unusual thing for these people to have a fever for ten or twelve weeks without recognizable lesions. I have now (Nov. 9) on hand a case in which there has been a constant abnormal amount of heat since Aug. 7th.

So, believing with Dr. King, that as heat is always produced in the the same way, i. e., by the conversion of something into something else—*disturbed function*, by changing the normal balance of supply and waste, thus increasing tissue metamorphosis, is the cause of fever—I conceived the idea that the *equalizing influence of the nerve centers* is disturbed by the admission of a materies

morbi into the blood, and that their irritation becomes a second cause by inducing, through increased centrifugal nerve force, disturbed function.

To bring this idea to your notice has been the object of this hastily written paper.

Of all the intricate problems presented by the continued fevers, none are more difficult of solution than those referring to the nervous system. From the many indications of the presence of that cunning worker, we are called to differentiate as to their origin *in the central nervous system*, or as to their *reflex nature*, that the practical points in cases of *nervous exhaustion in fevers* may be recognized, and that each individual case may be met by the remedies that to it are of paramount importance.

I shall speak of delirium as forming a turning point—a circumstance showing that, if not before, certainly now, unmistakable signs have appeared of the tendency to nervous exhaustion. Practically we are acquainted with an active delirium in fevers, which is to be clearly separated from the two forms of delirium occurring in the exhaustion of fevers, both of which are passive and apparently dependent entirely upon the same cause, the difference being due to idiosyncrasies, varying degrees of susceptibility to the depressing influence, or length of time the agent has been at work. We also, in addition to the two forms of delirium occurring as the result of nervous exhaustion, recognize as familiar an exhausted state made known by the rational signs of general weakness, while the mind remains clear.

In one or the other of these three classes the nervous depression produced by the destructive action of an elevated temperature commences to assert itself. What is termed active delirium has none of the characters of exhaustion about it. Its general sthenic character, and the fact that it comes on early in the disease, serve readily to differentiate it from the delirium of exhaustion. In each of these three expressions of nervous exhaustion the or-

ganic life is seen to be surviving the animal life. How aptly Shakspeare's pathology describes these patients when he says :

“The life of all his blood
Is touched corruptibly; and his poor brain
(Which some suppose the soul's frail dwelling house)
Doth by the comments that it makes
Foretell the ending of mortality.”

What has heat done to yield such results: to convert a sensible being into a maniac on the one hand, or a relaxed, unconscious, muttering, trembling creature on the other? Pathological research has so far failed to show a physical condition of the nervous mass itself capable of arresting cerebral function, and producing the dream-like stupor, with *muscæ volitantes*, which the patient striving to catch falls asleep in fatal coma, or the wild, resistless ravings marked by incessant talking and constant desire to get out of bed.

The relation and dependence of these symptoms upon the reciprocal action of heat and the nerve centers I believe to be the essence of these conditions. When the kindling wood of this great fire is consumed—the *materies morbi* of the fever has been destroyed—the flames have touched their principal fuel, and the nerve centers are gradually consumed. By the same concurrence of related actions which we everywhere witness in the body, as for instance when the congested capillaries of the intestinal mucous membrane relieve themselves by a copious watery exudation, so when long continued irritation by accumulated heat is applied to the nerve centers, relief comes to them through the increased expenditure of centrifugal nerve force, as exemplified by the increased pulse-respiration ratio and vermicular motion of the intestines.

As their functions thus become materially altered, the heart fails to maintain an equable circulation, and local congestions occur. The minute cell structure of the lungs fails to relieve the red corpuscles of their important freight,

and the blood is now loaded with carbonic acid gas. The bowels, which at the outset may have been constipated, now gradually become relaxed; diarrhea comes on, and if the irritation continues, the sphincters relax, spontaneous discharges occur, while the urine is retained.

Thus this theory brings us to much "functional disturbance—acting as a cause for fever." The first effect has now become a second cause, and death results inevitably but for the intervention of some agent—some skillfully applied drug, may be—whose sustaining action upon the nerve centers turns the tidal wave.

I have observed, during the last few months especially, while having to do with a fever whose principal characteristic was its continuancy, that a nervous temperament furnishes a highly inflammable fuel. I have now in mind a strong case in point: one of a family of seven nervous children was taken with a fever much like a mild form of typhoid fever, even to hemorrhages. This child died in six weeks. All of the remaining children, as well as both parents, were attacked—very much more mildly—but with a constant anxiety throughout the entire family, fearing others would die. And while, too, their previous general health was better, and the outset of the disease was milder than in the one that died, still each one has had fever eight or nine weeks, and two for ten weeks. No lesions are appreciable; and I have often asked myself the question, why don't that fever stop?

Again, I bring to mind the case of a young lady who presented, over twelve weeks ago, symptoms of a simple continued fever. She has not, in all that time, been free from fever but three days. This person, who, by the way for some four weeks Dr. Marshall treated with me, was possessed of more vigilance and acuteness than is usual while rational, as well as more of the cerebro-spinal symptoms later in the fever than is usual; and I believe that at the door of this highly nervous state can fairly be laid the cause of so long a siege.

In contrast with these cases, I saw, in the same locality, several others attacked in a similar manner and as severely, in whom the nervous susceptibilities and capabilities were anything but highly developed; they never spent a sleepless night.

The physician, as a sentinel, is watching the approach of danger; seeing from what direction the grim reaper makes his approach; watching upon what organ the main attack is to be made; for, to prevent death, he must know in what part life is threatened. He asks: "Is the tendency to coma, apnea, asthenia or adynamia?" Death from apnea or asthenia, due solely to failure of nerve power, is certainly not so rare as was formerly supposed. Once it was taught that rhonchus or sibilus must be discovered, or death by apnea was impossible; that death by asthenia was associated with a physical condition that at the same time produced apnea and coma.

Still we find that Cullen recognized the supremacy of the nerve centers in maintaining life, and in words says: "To obviate the tendency to death by a generous support—for death does occur by asthenia, *as existing by itself*, from mere debility of the heart."

Believing, as I do, that *disturbed function* is the cause of fever, the exhaustion of the cerebro-spinal nervous centers in our continued fevers becomes, from their importance and influence over the economy, a proportionate factor in the propagation of the fever. The exhaustion is, in other words, at first the effect of the entrance of the materies morbi, but later on holds a place second to none in marking our fevers with continuancy. That exhaustion is among the first effects produced by the fever poison, before any abnormal heat is to be detected, is fairly shown to be the case from the muscular hyperesthesia, headache, and neuralgic pains in the occipital and supra-orbital nerves. And now, if my idea as to the cause of fever be correct, viz: *disturbed function*, certainly we have from the formidable array of nervous symptoms,

such as unilateral contractures, tremors and deliriums, referable to the cerebrum, and hyperesthesias, anesthetics, pareses of the bladder and rectum, referable to the cord, found a solution to the problem, what makes this fever continue?

To the most casual observer even, no doubt, this perplexing question in differential diagnosis has arisen; for where one observes the first flickering of the flame, the problem more grave than any other, as having its relative bearing on treatment, is: This exhaustion being centric, what will sustain the nerve centers, stay the hand and shackle the powers of this new morbid agent, now elevated to the position of a prime factor in the destructive metamorphosis of a fever?

Is not then the conclusion a fair one, in the light of our present knowledge of the physiology of the nervous system, that when death follows a condition marked by a small, weak, thready pulse—the voluntary muscular system entirely relaxed, as shown by position of patient—the sphincters relaxed, vaso-motor disturbances, as shown by cold sweats, jerking respiration with an audible inspiration, and this state of things coming on late in the fever—that failure was not in the organs themselves, but in their cerebro-spinal and sympathetic nervous connections? Can such a dissolution be brought about by the failure of any one organ?

There is not a man here but what has met this state of things face to face, and asked himself the question, What has happened? Is the lesion centric or eccentric? Is the heart, brain, lungs, stomach, liver or bowels organically changed? Or is their special function now working abnormally from a primary interference with the nerve centers by heat?

These complex developments and manifestations of nervous phenomena in the course of our continued fevers must have their cause, in some degree, modified by extraneous forces. According to Geo. M. Beard, of New York,

nervous exhaustion as a distinct diseased action, with a definite pathology is common in the northern and eastern parts of the United States, and especially in those districts where typhoid fever is oftenest found, and with the other forms of diseased action toward which it tends, constitutes a family of functional disorders that are of comparatively recent development.

How important to have a correct idea and appreciation of where the weak point is; that we may reach forth our hands and take hold on strychnia, whiskey, opium or chloroform!

And, later on still in the fever, when, either from an abundance of nerve power the patient has been held above the lowering tendency of the fever—is much exhausted, but mind unclouded—or has rallied from one of the passive deliriums—you can assume that this conflagration has so enfeebled the nerve centers that from sheer lack of nerve force he continues in that state, you can bring to his aid the regenerating power of our strongest nerve tonics and artificial digestive fluids with which modern discoveries in organic chemistry have supplied us. In the way of treatment in these conditions what is needed? Arterial sedatives? nerve stimulants? antipyretics? or general diffusive stimulants? Upon these questions we all differ just so far as our ideas differ as to the pathology of fever. Can we treat these cases best with remedies directed to the *pulse*, because in the low, muttering form of delirium we find it 120 to 160 beats per minute, wiry and with a double beat? To the pulse, because in the wild form of delirium we find it as a whip cord, very hard, and striking with a characteristic stroke in diastole and failure in systole? To the *respiration*, because in the wild delirium it is somewhat irregular, and expiration most frequently marked by violent ejaculations? By remedies directed to the capillaries of the skin and mucous membranes, because in either form you may have undue dryness or moisture from vaso-motor disturbances? To the *muscular system*, because in the

muttering form great tremor, subsultus tendinum, vague graspings with meaningless pickings, and in the wild form the almost constant desire to get out of bed, showing tendency to fight if restrained, proclaim its failing? Or will you reach that pulse, respiration, capillary and muscular systems best by special means directed to the nerve centers, whose purpose it shall be not only to establish tranquility, but to replenish the fountain of nerve power?

In the management of the wild form of passive delirium, that which resembles much delirium tremens, I think no remedy equal to opium; but one point must never be lost sight of, and that is that it must be positively determined that the nervous disturbance exceeds the circulatory. We are apt to grow confused if we find in the wild form that though the pulse is weak and fluttering, there is a certain jerk in it—and are led to believe on that account that the circulating fluid has much to do with the sensorial excitement. How necessary here to see that a strong blow in the dark would be fatal. That bounding up of the pulse, apparently to strike a warning, is the special guide in the use of opium.

The muttering form of delirium, when not determined simply by a previous weakened condition of the nervous system, but due rather to a temporary anemia of the brain, is best met by the diffusible stimulants, such as whiskey, or carbonate of ammonia. Their action, though transient, causes the heart to replenish the brain, and delirium ceases.

Right here a beautiful question in differential diagnosis often arises, to determine between delirium from cerebral anemia and that which follows a previous nervous depression. This latter form is but the final sleep of my third class of cases, those who to the last have been blessed with the possession of all their mental faculties—who lay in an “exhausted state” for days, but now die unconsciously.

To meet the indications in this last class, to “obviate

the tendency to death" by pure nervous depression, certainly no drug is equal to strychnia. It supplies a place in therapeutics that, with our present knowledge of *Materia Medica*, cannot be equalled.

Especially is strychnia applicable in the treatment of our fevers, in consequence of its double physiological action. As shown experimentally by Sigmund Mayer, its effects are not limited to the nervous system of animal life, but the organic nervous system participates in the perturbation.

Clinical observations concerning its action on the sympathetic system, producing a rise in the arterial pressure and profuse perspiration, has been confirmed by observing the increased action of the heart and contractions of the vessels in the frog's web. Thus no remedy influences favorably more of the vital structures than strychnia.

ARTERIAL SEDATIVES IN THE TREATMENT OF PNEUMONIA.

BY T. P. PERKINSON, M. D.

[*Read before Chariton County Medical Society.*]

PNEUMONIA, uncomplicated, is an inflammation, commencing with congestion in a part of a lung only, or extending to the whole of one or, it may be, to both lungs. The part first affected may reach the second stage, or that of exudation, while another part of the same lung is in the stage of congestion.

In the stage of congestion very few physicians deny the utility of arterial sedatives, but too often withhold them in the stage of exudation. When pneumonia extends, as it were, step by step, by continuity of vascular tissues, the question to decide is, "when shall we cease to administer our sedatives?" for while one lobe is hepatized, another

is only congested. My rule is "to continue the sedative, not till physical signs tell me that part of lung is solid, but till I am satisfied the inflammation has ceased to extend, or till constitutional symptoms warn me of the danger of their continuance."

Artificial sedatives lessen the quantity of blood sent to the lung in a given time.

In the second stage of pneumonia the capacity of the vessels has been diminished by the exudation, and they cannot convey their normal quantity of blood; and the part which is hepatized is really anemic, not because of sedative treatment, but because there is vascular incapacity. Now if the heart continues to send more blood than these vessels can transmit, other vessels not encroached upon by exudation must transmit an increased quantity, and thus the disease may continue to extend till aeration is impossible and our patient "dies for the want of breath."

But I think some will say this is not the usual mode of death; that "*most* die of asthenia." Very well! What was the cause of that asthenia but inflammation of a whole lung or more? Now, if by any means we can cause the heart to send no more blood to the part than its vessels can transmit, then other vessels in parts not involved need not become engorged, and in this way we may circumscribe (as it were) the disease, and thus save our patient.

As I have already said, "arterial sedatives lessen the quantity of blood sent to the lung in a given time," diminish the force of the blood current, and the capillaries give passage to the circulating fluid without stasis in the first stages, and in this way, I believe, limit the disease in extent.

If a large part of lung tissue rapidly reach the stage of hepatization, forbidding the passage of a great quantity of blood through the part, instead of collateral pulmonary circulation, we may have regurgitation into the right ventricle, forbidding the reception of the normal quantity

from the venous system, and thus the liver become engorged and deranged in function, and the gastro-intestinal tract give evidence of irritation by vomiting and purging, tenderness and meteorism. I contend that, by controlling the cardiac force and frequency, the capillary vessels have time to relieve themselves between pulsations, and stasis is not a necessity or unavoidable result.

The gastro-intestinal symptoms coming on in the course of pneumonia are (I believe) very seldom the result of what is called the typhoid poison, having for their origin any *materies morbi* in the blood, but the result of passive congestion. I do not deny that there is a true typhoid pneumonia, i. e., pneumonia complicated, as it were, with typhoid fever. These gastric symptoms are, by a majority of physicians, attributed to *veratrum viride*, if that remedy has been administered.

The intestinal irritation is attributed to mercury, if that time-honored drug has been prescribed, and nobody ever suspects the diminished caliber of the pulmonary vessels as the cause.

With regard to the remedy, in nearly all, except the feeble and aged and very young, I have no hesitation in saying that Norwood's tincture of *veratrum viride* stands at the head. It sometimes vomits, but if we lessen the dose that distress soon passes away. If the pulse loses both force and frequency under its use, I conclude my patient is pretty safe. If it fails to do this, and the frequency is increased, I stop the remedy immediately and consider my case a bad one, and look to other resources. Aconite I regard as the next best sedative, especially when there is great cerebral excitement. Quinine, in *large doses*, I believe more applicable to the first stage than afterwards; its action is sedative, reducing the frequency and force of the heart's contractions. Tonics are not demanded till the strength begins to wane.

CASES FROM PRACTICE.

MISSOURI MEDICAL COLLEGE DISPENSARY— MEDICAL DEPARTMENT.

Service of DR. J. STEER—Reported by F. C. AMEISS, M. D., Assistant.

EPILEPSY.

CASE I.—Miss A. M., æt. 24 years. Her mother is healthy, never had any serious disease in her life; but her father is of nervous temperament, “gets mad easily, is easily excited, and worries much.” When eight months old patient received a fall, from which she was insensible for fifteen to twenty minutes, but whether she struck her head or not at this occasion her mother cannot say. The next day, while creeping along the floor, she suddenly screamed out loudly, which was followed by a “spasm,” as the mother termed it. She would often scream at night during sleep, but no more spasms were noticed until half a year later, when they began to occur again. Now she would have two or three attacks a month for several months in succession, then she would miss them for one or two months, and the following month the number of attacks would increase to three or four, and so on, until they occurred as often as eight to ten a day.

When a paroxysm occurred she would utter a sharp cry, fall down forwards and towards the left side, clinch her fists, froth at the mouth, and occasionally bite her tongue. She would be completely unconscious during the attack, with eyes widely open, immobile, and dilated pupils.

Before the paroxysm comes on she feels as though pins and needles were pricking her; at other times she complains of dizziness, and occasionally the attacks occur without any warning whatsoever. The aura is only of momentary duration, followed immediately by the paroxysm. The paroxysm lasts from two to three minutes, never longer than five. She generally falls asleep after each paroxysm for an hour or so.

The patient is a blonde, of slight build, pale and anemic. Tongue is furred and somewhat tremulous. Bowels are generally constipated. Appetite at times capricious. Menses regular, generally lasting a week, during which time she loses much blood. Complains of continual headache for the last year. The memory seems not to be affected.

The treatment consisted in the administration of bromide of potassium in fifteen-grain doses, and bitter wine of iron in two-dram doses, three times a day. For her bowels she received a dram of fluid extract of buckthorn (*rhamnus frangula*) at bedtime, and same in morning before breakfast whenever constipated. After taking her medicine for three weeks she was entirely relieved of the troublesome headache, and has not been bothered with it since. The buckthorn brought the bowels to their normal action, after taking it for a few weeks. The bromide had to be increased to one-and-a-half drams a day before any decided effects were attained. She has been taking this amount now for five months, and has had but four paroxysms during that time—three in the first month, and one, only a slight one, in the third month. Has not had any attacks for the last two months. The dose will gradually be diminished, but the same drug will be administered for several months, even if no more attacks should occur.

CASE II.—T. C., æt. 29 years, single, a strong and well nourished man. Family history good—never had syphilis.

This patient was first seized by epileptic attacks twelve years ago, at which time he indulged freely in alcoholic stimulants. He drank mainly whiskey; he would take as much as four to six drinks a day, and occasionally "get on a spree." When thirteen years of age he practiced masturbation, and kept it up for five to six years. He would masturbate two to three times a day. He had several epileptic attacks a week for years, but at time of beginning of treatment had three to four a day for three days, and then would not have any for one to two weeks.

The aura in this case consists in a feeling of constriction across the chest, and cardiac palpitation. This sensation would at times be only of a minute's duration, while again it would precede the attack an hour. The rest of the symptoms were similar to those in the first patient, with some few excep-

tions. This man does not froth at the mouth; he never injured his tongue during an attack. His mother says that he also has nocturnal attacks.

Treatment: Patient received fifteen grains bromide of potassium three times a day, which was gradually increased to two drams a day without producing any beneficial effect. Then the drug was withheld for one week, during which time he received no medicine at all. Then he was given, in addition to the bromide (grs. xv), fluid extract ergot (Squibb's) in twenty drop doses three times daily. Under this treatment the number of attacks diminished to about one a month. At times he would go almost two months with but one attack.

He was told to keep up treatment, and come to the clinic once a month and report, which he did for several months, but has not been around for the last three months.

AURAL CASES.

BY W. C. PIPINO, M. D., MEXICO, MO.

AURAL POLYPUS.

E. M., age 29, appeared for treatment for the relief of an otorrhea of the left ear, which had existed since he was seven years old. Syringing the ear carefully with warm water and drying with absorbent cotton, a specular examination with a powerful reflected light revealed three polypoid growths, filling up the external auditory canal and concealing the membrana tympani from view. An effort was made to seize each polypus with the forceps and twist it from its attachment. My efforts proving unsuccessful, I made an application of chromic acid to each polypus. This was repeated every fourth or fifth day until the growths were entirely removed, after which an application of a sixty-grain solution of nitrate of silver was made to the base of each growth, to prevent their recurrence. The patient made a good recovery.

CIRCUMSCRIBED INFLAMMATION OF THE EXTERNAL AUDITORY CANAL.

Miss I. N., age 16, a young lady attending school in this city, presented herself for treatment on Nov. 1st. She complained

of the following symptoms: Severe pain in the right ear, with a sensation of fullness and hardness of hearing, fever, and an accelerated pulse. On examination, it was found impossible to open the auditory canal on account of the swelling of the tissues. Three small furuncles or abscesses were seen to surround the outer opening of the auditory canal. The patient was seated in the operating chair with the head free; the auditory canal was illuminated, and deep incisions were made into each furuncle, which caused about a drop of pus to flow from each. Treatment was continued for over a week, together with hot applications applied to the external ear, as there was a tendency for the abscesses to recur, and recur they did. Circumscribed inflammation of the external auditory canal being an inflammation of the skin or subcutaneous and fibrous tissue, terminating in small boils or abscesses, it is easily understood why the above treatment was resorted to. Whatever remedy is employed in the cure of furuncles, when occurring elsewhere in the body, should most surely be employed when they make their appearance in the auditory canal, for they are not only an evidence of the need of an alterative treatment, but they are intensely painful and interfere with hearing. Consequently the patient was put upon a pill containing quinine, iron and arsenic, with hot-water injections into the external meatus three or four times a day. Only once after beginning this treatment was the knife resorted to, and about half a thimbleful of pus was discharged from the abscess. The patient steadily improved, and was entirely relieved in the course of a couple of weeks.

VERTIGO FROM IMPACTED CERUMEN.

Little Miss B., age $2\frac{1}{2}$ years, was brought to me for relief from giddiness, which her mother said was so great as to prevent her from playing as other children did. She had been subjected to the usual treatment for its relief without any benefit, until an examination of the ears was made, when both auditory canals were found to contain hardened plugs of cerumen, pressing upon both drum membranes. These were washed away with warm water containing bicarbonate of soda, when the symptoms subsided. The little patient has since been free from the annoyance.

CASES FROM A DOCTOR'S NOTE BOOK.

BY CARL SCHILLING, M. D., MONTROSE, MO.

CASE I—CONGENITAL MALFORMATION.

F. H., a boy about eighteen months old, was brought to me on account of drooping of the left shoulder and enlargement of the abdomen. When inquiring into the history of the case, the parents told me that directly after his birth they noticed the enlargement of the abdomen; that he had pneumonia when three months old, and last summer inflammation of the bowels, otherwise his health had been good. He commenced to walk when about fifteen months old; his appetite is good, his bowels regular, and he has no fever. The little patient looks rather thin and delicate, is of light complexion, and has a strumous appearance. When stripped of his clothing I was amazed to see such an enlargement of the abdomen, which was so enormous that it reminded me at once of one of the worst cases of ascites—thinking to find only a rather large abdomen, as is often found in strumous children and in those affected with worms. The abdomen was smooth, glistening from tenseness, traversed by enlarged veins, and bulging out and drawing in on inspiration and expiration. The spinal column was curved to a considerable extent in the dorsal region, the convexity being towards the right side. I laid him on a lounge and made a careful physical examination. On palpation, I found the costal cartilages wanting from the fifth rib downwards, also the corresponding part of the sternum, the ribs being floating like the eleventh and twelfth in the normal state. In percussing, I found the heart higher than normal, the sound over the lungs rather duller than natural; on the left side of the abdomen a tympanitic percussion sound, extending to the pubic bone below, spinal column behind and to the middle line in front; no dullness over the region of the spleen; the percussion sound of the right abdominal side being extremely dull. Proceeding to auscultation, I found the heart's sounds regular, though accelerated, as was the breathing, which was also tubular. Over the left side of the abdominal swelling I heard the clearest bellows-breathing sound imaginable, down

to the pubic bone; on the right side this sound was absent. My diagnosis was, "congenital air cyst, connected with a bronchial tube," pressing the abdominal organs to the right side, also the spinal column, thereby causing right lateral curvature. The costal cartilages and the lower part of the sternum were absorbed by the pressure of the tumor and compressed abdominal organs. My friend Dr. C. E. Wing examined the case, and coincided with me in the diagnosis.

CASE II—CHRONIC SEROUS SYNOVITIS.

C. S., a little boy nearly six years of age, was brought to my office on April 3d for joint disease, with which he had been affected over two years. The boy had a dark, strumous complexion, is mentally well advanced considering his age, and has never had any acute sickness. His appetite was very poor; the right knee-joint, flexed to an angle of about sixty degrees, considerably enlarged by synovial fluid; the patella large, and floating on top of the fluid; the joint bulged out on every side of the patella; the skin was very tense, and traversed by enlarged blue veins, looking white as in white swelling. The right ankle joint was much enlarged; the middle joint of the little finger of the left hand, which was bent to a right angle, was similarly affected, and the left knee-joint somewhat distended by synovial fluid. There has never been an acute inflammation in either joint; the swelling commenced gradually, without pain. There was no pain when I first saw him, except when I tried to straighten the knee-joint. He always would complain of some pain when there was a change in the weather, as the parents told me. I diagnosed "chronic serous synovitis," unusual in the involvement of so many joints. I ordered general and local treatment—the former consisting in the administration of cod-liver oil, iodides of potass. and iron, alkalies, etc., with good nourishment; the latter in using counter-irritants and pressure over the joints, combined with absolute rest in bed. Later on I had him take a steam bath twice a week, under which treatment his health improved and the fluid disappeared from the joints. The right knee-joint is somewhat flexed yet, with enlarged patella and articular ends of the bones, which I think will disappear in the course of time.

EDITORIAL.

CLINICAL OBSERVATIONS ON ALBUMINURIA.

ARTHUR V. MEIGS read before the College of Physicians and Surgeons of Philadelphia, Oct. 4, 1882, a paper containing the results of his study of sixty-two cases of albuminuria, which was published Nov. 2, in the *Boston Med. and Surg. Journal*, and Nov. 11, in the *Cincinnati Lancet and Clinic*. He says that he has been able to follow some of these cases for a series of years, and accordingly has had opportunity for careful clinical observation of them. He says that that which has most impressed him is the impossibility of making a prognosis with any degree of exactitude in most cases of Bright's disease. Of course in the plainer cases it is an easy matter; in a case with a large or even moderate amount of albumen in the urine, with increasing heart failure and evident decline of strength and vitality, with headaches and the peculiar white complexion of the disease, it is easy to predict that that person will not live, and in nine cases out of ten the prediction will be true; but in the case of a young man of thirty-two or -three, previously well, but for some weeks complaining of headaches, malaise and boils, when examination of the urine shows a slight amount of albumen, granular and hyaline casts, and abundance of rather small oxalates, it is not so easy to decide the future. He has seen such cases go on pretty well for a few months, then suddenly have convulsions and die in a few days; while on the other hand persons presenting identical symptoms, after being sick for a few weeks or months, entirely recover. He mentions three persons in whose urine he found albumen and tube-casts, with all the other signs of Bright's disease, more than eight years ago, who are still alive.

He maintains that in doubtful cases, with our present knowledge, it is impossible to prognosticate what the result will be, and urges that in justice to the patient and his family, as well as for the credit of the profession, the prognosis should be very guarded. The presence of albumen and tube-casts even continuing for so long a time as two years, as shown by one of the histories which he cites, does not necessitate a fatal prognosis, especially if the patient is past middle life.

A very common symptom of renal disease, and one upon which there is not much stress laid by most of the books upon the subject, is dyspnea. Dr. Meigs says that renal disease must be suspected whenever a patient is found suffering with dyspnea, particularly if there is great nervousness and loss of self-control and anxiety, with no other fully sufficient cause for its existence; and the urine should be examined even if there are no other symptoms pointing toward renal disease. Such attacks of dyspnea coming on suddenly in persons who have not considered themselves sick, are often quite rapidly fatal. Dr. Meigs thinks that these attacks are much more common than is usually supposed.

Another symptom of Bright's disease to which he calls attention, and which he thinks has not been noticed generally, is coryza, such that it gives rise to much greater distress than any ordinary cold in the head. In this condition there is not much discharge from the nose, but the patient complains that he can get little or no air except through the mouth, with more oppression than the condition would seem to warrant.

The existence of oxaluria or of uric acid lithiasis he regards as a prolific source of injury to the kidney. He states that he has seldom failed to find tube-casts in the urine of any one who has passed gravel for some time, whether oxalates or uric acid. He believes that the mechanical irritation of the lining membrane of the tubuli uriniferi, by the sharp edges of the minute calculi passing through them, is an efficient factor in ex-

citing Bright's disease. He thinks this true when the calculi are of microscopic size, and to a still greater extent when they are of such size as to produce nephritic colic.

Dr. Meigs thinks that a considerable proportion of the deaths from "old age" would be more accurately accounted for if careful examination were made of the urine, which often would establish the presence of degenerative changes in the kidneys. He thinks that Bright's disease, as a cause of death, is on the increase, and that the abuse of alcohol is certainly a cause of renal disease.

LIBRARY OF THE SURGEON GENERAL'S OFFICE.

It may not be known to many of the profession what a valuable medical library that is which is attached to the office of the Surgeon General of the United States Army. This library is devoted entirely to medicine and its branches, and the works are not duplicated in any other library in Washington, except only those copyright American publications of which specimens are deposited with the Library of Congress. It is the plan of this library that it shall contain a copy of every medical publication of our own country, both books and periodicals, as well as all those of special value published in Europe.

The additions to the library during the year ending June 30, 1882, according to the annual report, included 3,200 volumes and 3,500 pamphlets, making the total number in the collection about 57,000 volumes, and 63,700 pamphlets.

An arrangement has been effected by means of which this immense fund of medical literature is made available to members of the profession in different parts of the country wherever there are incorporated public libraries.

Any physician who desires to consult one or more volumes from this library can, by making application through the libra-

rian of such incorporated library to the librarian of the Surgeon General's Library, and the deposit of money to pay the expense of transportation from Washington and back again, have such volume or volumes sent to that library, to be there consulted during such time as may be specified. In this way physicians who are studying up any particular subject can secure the opportunity of consulting the work of all who have written upon that subject, at a comparatively trifling expense.

We are glad to be informed that "the use of the library by the medical profession throughout the country is steadily increasing." Over three hundred requests for information, involving much research and extensive correspondence, were received during the year, coming from all parts of the United States.

As stated in the annual report, "no advantage would accrue from merging this library with any other; its size and importance, and the demand made upon it being such as to require the services of a specially skilled medical officer to make it as useful as it should be, and to preserve for it the interest of the medical profession of the country to which much of its value is due."

In this connection we would call attention to the great importance, indeed the absolute necessity, of providing a suitable fire-proof building for the reception of this library, which is yearly increasing so rapidly in size and value.

The present building is over-crowded and unsuitable for the purposes, while the occurrence of a fire would jeopardize or destroy collections the loss of which, not only to this country, but to the world, would be wholly irreparable. The army medical museum, which is at present kept in the same building with the library, has attained a world wide celebrity as "second to none in the number and value of specimens illustrating military surgery and the diseases of armies."

Let the members of the profession, as individuals and as or-

ganized societies, in every possible way bring to bear upon the members of Congress all their influence to secure at the next session the appropriation of such sums as may be necessary to secure the erection of fire-proof buildings, suitable for the preservation of both these invaluable collections.

Another important matter is to secure from Congress an appropriation for carrying on the publication of the INDEX CATALOGUE. The third volume, which we noticed recently in the COURIER, ended with the end of letter D. The manuscript of volume IV, which will include the letter E and part of F, is nearly ready, and an estimate has been forwarded for printing volume V. Let us urge upon Congress the importance of providing the money necessary to secure the completion of this work as rapidly as may be possible.

HEALTH OF THE ARMY DURING THE FISCAL YEAR ENDING JUNE 30th, 1882.

Some items from the annual report of the Surgeon General are of considerable interest, and of some importance as a study of the two races that are represented in considerable numbers in the army.

The monthly reports of sick and wounded represent an average mean strength of 20,778 white and 2,265 colored troops.

The total number of cases of all kinds taken on the sick list was: 34,880 white and 4,099 colored, being at the rate per thousand of mean strength of 1,679 white and 1,810 colored.

The total number of cases of disease and the rate per thousand were respectively: $30,353 \div 1,461$ per 1,000 white; and $3,481 \div 1,537$ per 1,000 colored.

The total number of cases of wounds, accidents, etc., and the

rate per 1,000 were: $4,527=218$ per 1,000 white; and $618=273$ per 1,000 colored.

The average number constantly on sick report during the year was: $942=45$ per 1,000 white; and $100=44$ per 1,000 colored; $762=37$ per 1,000 white, and $77=34$ per 1,000 colored being under treatment for disease; and for wounds, etc., $180=8$ per 1,000 white; and $23=10$ per 1,000 colored.

Total mortality from all causes was: $216=10$ per 1,000 white; $25=11$ per 1,000 colored.

Mortality from disease was: $141=7$ per 1,000 white; and $16=7$ per 1,000 colored.

Mortality from wounds, accidents, etc. was: $75=3$ per 1,000 white; and $9=4$ per 1,000 colored.

Proportion of deaths from all causes to cases treated was: 1 to 161 white, and 1 to 164 colored.

MEDICAL AND HOSPITAL SUPPLIES.—The money value of the medical and hospital supplies issued during the fiscal year ending June 30, 1882, was \$181,333.80.

UNITED STATES DISPENSATORY.—The fifteenth edition of the United States Dispensatory will be issued this month from the press of J. B. Lippincott & Co. The editors are Dr. H. C. Wood, Prof. of Materia Medica and Therapeutics in the University of Pennsylvania, J. P. Remington, Prof. of Pharmacy, and J. P. Sadtler, Prof. of Chemistry in the College of Pharmacy of Philadelphia.

Three years have been spent in the revision, which has been very thorough and brings the work fully up to date with regard to all the most recent advances in materia medica, chemistry and therapeutics.

The names of the editors are warrant sufficient of the thoroughness and care employed in the revision of this most valuable of American medical works.

BOOK REVIEWS AND NOTICES.

ON SLIGHT AILMENTS: THEIR NATURE AND TREATMENT. BY LIONEL S. BEALE, M. B., F. R. S., etc., etc. Second edition, enlarged and illustrated. Philadelphia: P. Blakiston, Son & Co. 1882. 8vo; pp. 282; paper, 75c.; cloth, \$1.25.

In the list of volumes of English authors reprinted in cheap form by P. Blakiston, Son & Co., of which we have had occasion to speak several times already in terms of commendation, occurs this volume, by Prof. Beale, whose name is better known in this country as one of the leading authorities with reference to work with the microscope, than as a practitioner of medicine. A perusal of this volume will satisfy anyone that this fact is by no means due to inferior ability as a practitioner. This volume seems to us one of the most serviceable that can be placed in the hands of a student or young practitioner. Many a time does it happen that some of the "slight ailments" to which human flesh is heir are more puzzling and annoying to the young practitioner than a fully developed pneumonia or enteritis or cerebritis. Dr. Beale treats of these minor troubles that occur so constantly in a style that is clear, concise and attractive, and, above all, practically helpful.

TRANSACTIONS OF THE MINNESOTA STATE MEDICAL SOCIETY. 1882. 8vo.; pp. 272; paper.

The address of President Hewitt discusses a number of different topics, among the most prominent of which are matters relating to specialists, the code of ethics, medical education, state medicine, duties of physicians as health officers, etc.

We note that the committee which reported upon the Diseases of Children was composed entirely of lady practitioners. In this report Dr. Preston calls attention to the value of cresyline, one of the coal-tar products, as a specific in the treatment of whooping cough.

The report on Surgery is quite an extensive one, covering seventy-two pages of the volume, and including a large number and variety of cases occurring in the practice of surgeons all through the state.

The report on Obstetrics is brief, being simply an analysis of the answers to a circular sent out by the committee, with reference to the history of puerperal fever as occurring during the year. About 190 circulars were sent out, and only twenty-five answers were received; and of this number six simply replied courteously that they had nothing to report; eleven had seen no cases, but answered the questions as to matters of opinion; eight physicians had seen nineteen cases, and the chairman of the committee two more. The report on this department contains also a case of puerperal convulsions.

The report on Diseases of the Nervous System contains a paper on The Care of the Insane by Minnesota, by the chairman of the committee, Dr. C. K. Bartlett, being a history of the legislative enactments and the establishment of the several insane asylums of the state. Then follow papers on The Differential Diagnosis of Insanity and its Early Treatment, by Dr. J. E. Bowers, and on Neuralgia, by Dr. W. L. Lincoln.

The Committee on Gynecology report that that department of practice is attracting more attention than heretofore in that state, but that responses to their circulars have offered them very meager material for a report. They are of the opinion while a vast majority of the cases of "laceration of the cervix uteri" are reported as successfully treated by surgical interference after a proper preliminary medication, yet there seems to be a growing opinion among those who have given the subject special attention that the operation has been done unnecessarily in many cases.

The Committee on Epidemics, etc., presented a good report with regard to sanitary work in several different parts of the state.

The Committee on Medical Jurisprudence presented a paper on Expert Testimony, by the chairman, Dr. C. H. Boardman, and also a long and interesting report of a suit for malpractice.

Another interesting paper is the report on Consumption in Minnesota, by Dr. Mattocks.

The work done by the Minnesota Association, as shown by their published "Transactions," is creditable and evidences a high standard of professional culture there.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEAR 1882. Washington, Government Printing Office. 1882. 8vo; pp. 304; paper.

It is with more than usual interest that we have read this report of Surgeon-General of the Marine Hospital Service of the United States.

The first fifty-seven pages comprise the official report to the Secretary of the Treasury, of the relief furnished, the receipts and expenditures, the purveying division, appointments, promotions, etc., of the medical corps, hospital buildings and grounds now under the care of the department, and suggestions as to necessary additions, examination of pilots for color-blindness, and the hygiene of the merchant marine.

Then follow several pages devoted to a consideration of facts relating to the proposed reduction or abolition of the marine-hospital tax, and a statement of the present arrangements and provisions for the care of seamen and boatmen in different ports throughout the country.

But what seems to us the most interesting, and to the medical man by far the most valuable portion of the volume, following the full tabular statement by districts of diseases and injuries, are the selected cases from hospital practice. These reports of cases are exceedingly well prepared, and some of the cases are very interesting contributions to medical literature. We shall give our readers abstracts of some of them in our reports on progress. Among others, we were specially interested in the report of seventeen cases of rheumatic effusions in joints, treated by aspiration, which are reported by Surgeon Henry W. Sawtelle, of this port. Passed Assistant Surgeon W. H. Heath reports seventeen cases of operation by the Heatonian method for the permanent cure of hernia. Assistant Surgeon Henry R. Carter reports a stab-wound, followed by artificial anus—operation—recovery. Assist. Surg. C. E. Banks then contributes a careful study of the subject of aneurismal varix, with the report of a case that he treated, illustrated with a full-page wood-cut of the specimen. Acting Ass't Surg. C. A. Wheaton, Ass't Surg. C. E. Banks and Surg. C. S. D. Fessenden, each furnish a report of a case of aneurism. Surg. T. W. Miller reports a case of epithelial cancer of the lip, which recurred speedily after removal, and resulted

fatally. Surg. W. H. Long reports a case of mortification involving a portion of the nates and nearly the whole scrotum, but terminating in recovery. Acting Ass't Surg. A. C. Hamlin reports a case of molluscum fibrosum, a rare and little studied disease. This report is accompanied by an admirable photograph taken from the specimen at the U. S. Naval Laboratory. Acting Ass't Surg. W. D. Stewart reports three cases of small-pox, one of which had been previously vaccinated.

Then eighty-four pages are devoted to reports of all the fatal cases occurring during the year, with account of the autopsies. The number of these cases is too large to admit of specifying the particulars. Two of the reports are illustrated; one, a case of hepatic abscess treated by aspiration, is accompanied by a full page wood-cut; the other, a case of caries of the calcaneum, has a photograph of the carious bone as an illustration.

We regret that our space will not allow us to cite in full the paper by Surgeon Walter Wyman with reference to "Hygiene of the Steamboats on the Ohio River." It is the result of careful study and observation, made when the Doctor was stationed at Cincinnati, and is an admirable presentation of the results of this study in such a way that its general reading ought to go a long way towards securing a reformation of the abuses therein described.

The whole report is well prepared, and the Supervising Surgeon-General has given us a work that reflects credit upon the department of which he is the chief, and shows well the value and importance of the work that is done by the department.

CONJOINT SESSION OF NORTH CAROLINA BOARD OF HEALTH AND MEDICAL SOCIETY OF NORTH CAROLINA. 1882. 8vo.; pp. LXVI; paper.

This pamphlet contains a paper by Dr. W. P. Beall on Preventive Medicine, which is a brief résumé of some of the facts showing the importance and progress of this department of medical science and some of the difficulties which it has to encounter.

The greater part, however, is occupied by the admirable and complete report of the secretary, Dr. Thos. F. Wood, who may in truth be said to be the embodiment of the North Caro-

lina Board of Health. He shows some of the difficulties encountered by the Board of Health in their endeavors to collect "vital statistics," and urges upon the profession the importance of a serious consideration of the subject and of educating the people up to an appreciation of their value.

A good deal of work has been done during the year in the laboratory of the State Agricultural Department, in the way of making analyses of various articles of food that were supposed to be adulterated. The conclusion reached is that communities suffer not so much from the great harmfulness of substances used for adulteration, but, from an economical point of view, by the excessive prices paid for food containing cheap and worthless substances.

Several pages are devoted to vaccination and small-pox; and several pages are then devoted to a consideration of "river fever;" and a reprint of the circular issued by the Board of Health, "Advice to Shipmasters for the Prevention of River Fever; The Fever Thermometer—Its Uses." Much good work has been done by this Board of Health in this way of issuing to the people or to special classes of people circulars containing clearly stated instructions that will aid them to avoid dangers to which they may be specially exposed. Papers on the Disposal of Garbage, and on the Value of Night Soil and on the Water Supply for Towns and Cities fill up the remaining pages of the report.

We think the State of North Carolina is to be congratulated on its Board of Health and the North Carolina Board of Health upon its efficient secretary.

ARTIFICIAL LIMBS.—The U. S. Government furnished to disabled soldiers during the fiscal year ending June 30, 1882, artificial limbs and other appliances:

	In Kind.	Commuted.
Artificial Legs, - - -	122	428
Artificial Feet, - - -	2	15
Apparatus for Legs, - - -	4	225
Artificial Arms, - - -	6	668
Artificial Hands, - - -	1	3
Trusses, - - - - -	1	—
Apparatus for Arms, - - -	—	376

The outlay for these appliances was \$102,081.15.

Annual Report of the Surgeon General.

TRANSLATIONS.

CURATIVE AND MODIFYING INFLUENCE OF ERYSIPELAS.

BY M. H. DAUCHES.

Does erysipelas enter the list of infectious maladies? Most physicians to-day consider it as such; all at least have been struck with the character of gravity which some epidemics present; but infectious erysipelas itself is far from having always the gravity which we habitually assign to it; moreover, it sometimes modifies very advantageously the course of torpid affections. To seek to demonstrate, by a recital of facts, the existence of a *salutary erysipelas*, different by its results but not by its nature from ordinary erysipelas, will be the object of this essay. Thus besides the erysipelas which slays the newborn and decimates the maternities of great cities, there is one which may be called curative. There is here a fact already long known which Devergie, Grisolle, Ricord, Champonillon, Desprès, Maurice Raynaud, Ed. Labbé had more than once observed. The salutary action of erysipelas seems to be exercised preferably upon a certain number of chronic affections of the skin, all more or less rebellious to the efforts of art. The modifying properties of erysipelas are especially striking in the cure of phagedenic chancre, and of lupus so often incurable. Its favorable influence is manifested again on some old sores, among which we shall cite certain ulcers of the legs, diffuse phlegmons with peri-articular suppuration, some benign tumors of the breast in course of ulceration, etc.

[Here he discusses the question of substitutive action of acute for chronic inflammatory conditions, calling attention especially to the use of substitutive medication in skin diseases. He then relates several cases. In one, a facial erysipelas resulted in the complete cure of an extensive lupus; in the second and fifth, a phagedenic chancre was cured by an erysipe-

las; in a third and fourth, a phagedenic chancreous bubo of several years standing was cured by an erysipelas.

In summing up his conclusions from these and some other cases he says:]

1. Erysipelas acts upon a great number of morbid tissues by acutely inflaming them, and by awakening by that irritant and substitutive action the vitality of the tissues;

2. It modifies favorably certain ulcers and particularly the phagedenic ulcer and lupus; it can likewise destroy certain fungous tumors, dry up old suppurations, and cause elephantiasis to disappear;

3. This salutary action is unfortunately very rare, but it ought not to be misunderstood by physicians, and in cases of rebellious, serofulous and syphilitic ulcers ought to be respected.—*L'Union Méd.*, Oct. 5, 1882.

THERAPEUTIC APPLICATIONS OF SOFT SOAP.

For some years our therapeutic arsenal has been so enriched with new arms that it is not astonishing if old remedies have been unjustly neglected. Among these we find the soft soap or green soap, of which Prof. Senator has attempted the restoration to its proper position. This common remedy has been employed for a long time in certain diseases of the skin. Four years ago Kapesser showed that this substance was very efficacious to cause the resolution of chronic, serofulous engorgements of the lymphatic ganglia, in certain chronic exudations which often supervene in the phthisical; others have suggested it in certain affections of the bones.

Dr. Senator believes that soft soap possesses real resolvent virtues of the same grade as the iodine and mercurial preparations, whose disadvantages it has not. Besides the indications which have just been presented, the author has found it good in indolent buboes which persist after the cure (?) of syphilis, in the effusions into serous cavities and synovial membranes, for example those of the pleura, pericardium, peritoneum. He cites among others five cases of effusion into the pericardium, and two cases of diffused peritonitis, where this medication has been of special service. He prescribes ordinarily one or

two, or at most three rubbings a day; he applies each time about the size of an almond or nut of the soap with or without the addition of essence of lavender.

As to the interpretation of the action of this common remedy, Dr. Senator thinks that a part is due to the mechanical action of the massage which constitutes the friction, a part to the slightly stimulant action of this body, and a third to the resolvent or dissolvent properties of the potash which forms the base of the soap.—*Berlin. Klin. Woch.*, Sept. 18; *La Presse Med. Belge.*, Oct. 29, '82.

MILIARY TUBERCULOSIS OF THE PHARYNX, CURED BY APPLICATIONS OF IODOFORM.

BY DR. GOUGENHEIM.

The patient who was the object of this observation is a young woman æt. 25 years, who, at the commencement of a pregnancy, contracted an angina, for which she was unsuccessfully treated for six months. When she came to me she was in a very distressing state of emaciation, the deglutition of food and drinks had become absolutely impossible, and the voice had a very pronounced nasal twang. On opening the mouth it was easy to determine the existence of a vast ulceration of the isthmus of the throat. The velum palati was of a deep red and slightly tumefied; the edges slightly notched. The ulcerated surface extended upon the posterior face, the anterior and posterior pillars of the fauces were ulcerated, the site of the right tonsil was only a cloaca; it was here that the ulceration must have commenced. The uvula, ulcerated at its point of attachment, was greatly hypertrophied and hung in the throat, a condition which rendered the situation of the patient still more painful. The ulcerated surface was sprinkled with a series of yellow points; the uvula had a yellow-white coloration, and was manifestly the object of an infiltration with pathological tissue.

In the presence of the trouble which the excessive hypertrophy of the uvula caused the patient, and at her formal request, I did not hesitate to resect it. On section of this uvula

there was found the presence of a very hard grayish tissue, sprinkled with yellow points, softened, manifestly caseous. Under the microscope there was found to be present a tuberculous, submucous infiltration, invading the whole thickness of that appendage.

I applied every day a dressing of iodoform in ethereal solution. This dressing, made with care by means of a brush dipped in the solution and applied successively to the ulcerated surfaces, made it practicable to deposit upon the surface of the ulcers a layer of pulverulent iodoform, the ether evaporating almost immediately. The dressing was made also on the posterior face of the velum palati.

At the end of ten or fifteen days the cure was almost complete; the ulcers were modified at first with rapidity, the swelling of the velum disappeared very rapidly, and finally the surfaces took on an almost normal appearance. The patient, who could swallow scarcely anything, was able to take nourishment easily by observing the necessary precautions in regard to the choice of articles and temperature of his food and drinks.

At the end of a month, following some imprudence of conduct, the pains reappeared, and we were able to detect in the left anterior pillar a hard, yellowish surface, a little bosselated. The application of powder of iodoform by the same process did not succeed at first, and the patient complained anew of quite acute pains. Soon the parts ulcerated, and the iodoform dressing applied every day, and which seemed inefficacious so long as the surface was not ulcerated, rapidly modified the ulcerated points, and the cure of the condition was as complete as the first time.

The observation which I have the honor to communicate to the society is a remarkable example of the cure of an affection which is ordinarily considered refractory to all treatment, as would be supposed at least from the cases cited by Isambert and other authors.

It follows from the reading of this case that the iodoform applications have no result unless made in the ulcerative period; in fact, at the moment of relapse the iodoform seemed to be inefficacious, and it was only by a happy chance that, persevering until the stage of ulceration, we had the satisfaction of recog-

nizing the cause of that apparent failure and of establishing rules for this local medication.

Our patient, fortunately, presented no other tubercular localization, the viscera and respiratory organs being quite intact. The pregnancy, a condition unfavorable in the present case, was not influenced by the course of the affection, which had slowly evolved for several months, when I observed this patient for the first time. Since that time I have been able to follow this patient; the accouchement took place without complication, and while the pharynx has retained a certain susceptibility, nothing has appeared since.

This observation then will have the merit of extending the number of curable cases of localized tuberculosis, and of demonstrating the curability of an affection whose gravity has hitherto been regarded as excessive.—*L'Union Méd.*, Nov. 4, 1882.

OCCLUSION OF VAGINA.

M. HEYERNAUX reported to the *Académie royale de médecine* the following interesting case: Marie D., æt. 20 years, was brought to the maternity hospital by her mother, Sept. 4, 1882. She was of low stature, small limbs, good conformation exteriorly and of excellent health usually. She had not menstruated for some months, but frankly admitted having submitted herself repeatedly to her lover, and although *sexual relations had never been fully consummated* she believed herself to be pregnant, and thought that she was feeling the preliminary pains to delivery.

The uterine development, the mammary changes, the markings upon the belly, finally the recognition of the cardiac bruits of the fetus confirmed the supposition of a pregnancy, which appeared to be about eight months advanced, and the progress of which had been regular.

Vaginal examination disclosed an anomalous and rare condition, as there was an insurmountable obstacle to the introduction of the finger into the parts. Inspection showed the external genitalia to be normal in appearance; but on separating the labia a little tumor was seen, of the volume and

form of a large almond, of rosy hue, mucous, of soft consistence, and giving the sensation of a pocket with very thick walls. The finger pressed it up without difficulty about two centimeters in the direction of the vaginal canal, but on the withdrawal of the finger it returned to its place immediately. Above it was the meatus urinarius; below, it lost itself in the fossa navicularis. The most attentive examination and pressing upon the surface with a sound failed to discover the most minute orifice, or the least trace of a cicatrix.

It became a matter of great interest to determine how impregnation had taken place under these circumstances. There was no communication by the meatus urinarius nor by the rectum, and neither of these passages gave any indication of having been unnaturally used. Finally in the course of the manipulations, after repeated pressure with the fingers, a minute drop of fluid was seen to spring up upon the mucous membrane a little outside and to the right of the median line, without, however, disclosing the opening whence it escaped. The tip of a very small stylet was pressed upon this point and with some hesitation passed through into a cavity where the point could be moved about quite freely.

In fact, the obstruction was a greatly thickened and strong hymen, so nearly imperforate that no orifice was visible to the naked eye. This was freely incised and the finger passed through the incision. The vagina was free, a little moist and at the depth of it the uterine neck thin, softened, with the external orifice able to admit the finger; a tumor having all the characteristics of the fetal head occupied the depth of the excavation, yet there were no signs of travail. A plug soaked with carbolized oil was introduced between the lips of the incision; and after having been kept under observation for two days, Marie D. was sent home, with the direction to apply to the vulva, which was slightly edematous, compresses wet with Goulard's solution.

† The following facts were learned as to her previous history: She had arrived at the age of fifteen years in perfect health. At this period for the first time she had abdominal pains, with sense of weight in the loins and upper part of thighs, accompanied with desire to vomit. This indisposition lasted three or four days, after which everything returned to its natural

condition. However, in a month the same indisposition re-appeared, and so monthly during two years with this peculiarity, that each month the suffering became more violent and the vomiting more distressing. At the same time the belly progressively increased in size, so that she was accused of being enceinte when this was not the case. Persuaded that her periodical sufferings were due to her not menstruating, she took forcing medicine for the purpose of bringing on her menstruation.

However, at 17 years old her belly had acquired a size equal to that which it presented at the time when she came to the hospital, when pregnancy was, as already stated, eight months advanced. On the other hand the pains became so severe every three or four weeks that she was obliged to give up service and return to her father's home.

In one of her severest attacks, a physician was called in. According to her account she experienced veritable uterine contractions, that is to say, that she had violent pains with intermittent exacerbations in the loins and extending toward the depths of the pelvis, and giving the sensation of a ball pressing upon the fundament; at this moment she experienced an imperative desire to urinate without being able to satisfy the desire. In spite of her protestations it was believed that she was suffering the pains of an imminent delivery.

The physician who saw her on this occasion quickly discovered that there was a singular anomaly, on account of which he advised the removal of the girl to the hospital. But the distance was too long and the pains too intense; it was necessary to care for her at home. According to her account the tumor which presented at the vulva was taken for the head of an infant, covered with something which prevented its expulsion. The error was discovered at the moment when the accoucheur, prudently passing a needle into the tumor, saw the blood spirt to a great distance. Emboldened by the result of the puncture, the physician immediately made a second operation, which was followed by an abundant loss of blood, which continued, though constantly diminishing, for several days. As soon as the blood escaped the pains were assuaged, and she was able to urinate. From that date also the belly diminished

n size, and thereafter there was a periodical menstrual flow until the supposed date of conception.

The patient returned to the hospital and was confined normally on the night of September 12, '82.—*La Presse Méd. Belge.* Nov. 5, '82.

TENDINOUS CYST WITH RICE-SHAPED GRAINS— CURE.

M. DR. HUMBERT reports the case of a woman, æt. 27, a cook, who had on the right hand a synovitis of the sheath of the flexors of three years' standing. The tumor was wallet-shaped, and the upper sac was specially prominent at the internal part of the anterior aspect of the wrist. There was difficulty of movement of the fingers, specially of the last two.

M. Humbert operated Aug. 1, '82. The patient being anesthetized, he made an incision an inch in length upon the prominent part of the antibrachial sac, taking care not to engage the superior cul-de-sac, nor the neighboring cellular tissue. The wall was three or four millimeters thick, dense and fibrous. He evacuated a great quantity of little bodies of lenticular form. Two 5 per cent. carbolyzed injections were made into the interior of the sac. M. Humbert removed also five or six extremely small bodies pediculated and attached to the internal face of the cyst. He excised a little of the two lips of the sac, in which he placed a short drainage tube.

With the antiseptic dressing, M. Humbert associated compression made with a sponge placed in the palm of the hand, and immobilization by placing the fore-arm and hand in a gutta-percha splint. The drain was removed the next day; there was no suppuration, the wound granulated and cicatrized slowly. Two weeks later the dressing was replaced by an oiled bandage. The patient left the hospital Aug. 26. She was presented to the Société de Chirurgie Oct. 11, two and a half months after operation. It was easy to see that the result was excellent, the cure perfect, except a slight diminution of force in the little and ring fingers.

The reporter called attention to the condition of the tendons situated in the affected sheath. Two facts which he had ob-

served showed that in the tendinous synovitis with rice-form grains the tendons may be altered, a fact which is of interest as regards prognosis and therapy, as the fear of tendinous lesions will suggest early interference, and moreover the possibility of their existence will not permit us to assure the patient of a complete re-establishment of the movements.

As to the pathogeny of the rice-formed grains, M. Humbert seems to adopt Virchow's theory, that the grains are formed by proliferation from the walls of the sheath. According to M. Nicaise, this theory, acceptable for the explanation of the formation of some isolated grains, is no more so when it relates to that multitude of grains which occupies the cavity of the sheath in this variety of tendinous synovitis. Macroscopic and microscopic examination and chemical analysis demonstrate that these last bodies are formed of albuminoid matter, and not of connective tissue. The principal object of M. Humbert's communication was to show the efficacy and innocuity of the rigorous antiseptic method in the treatment of these cases.—*L'Union Méd.*, Oct. 31, '82.

EMBOLISM OF THE ARTERIES OF THE LUMBAR SPINAL CORD.

DR. N. WEISS, VIENNA.

A boy, aged 16 years, entered the hospital Oct. 9th, 1879, with the following history: Up to June 6th, 1879, he had been to all appearance perfectly well. On that day, while grooming a horse, he suddenly felt a violent pain in the popliteal regions, which extended up to the epigastrium anteriorly and behind to a point on the same level. He dragged himself with difficulty to a neighboring room, where his loud cries of pain brought assistance; it was then found that both legs were paralyzed. He was put in bed and a physician called, who discovered complete paralysis, motor and sensory, of the lower extremities, paralysis of the bladder and rectum, and complete anesthesia in the lumbar region. The patient almost constantly screamed from intense pain in the legs: this distressing suffering lasted three days and nights.

The paralysis persisted unchanged, there was constant involuntary escape of urine; purgatives failed to empty the bowels, the feces had to be artificially removed from the rectum. The pains did not persist after the 3d day, nor did they again occur.

Four weeks after the appearance of the paralysis the legs became edematous, which condition persisted in varying degree.

Upon entrance (Oct. 9th) into the hospital, the patient was very emaciated and anemic. There were no cephalic disturbances whatever, the pupils were normal and fully responsive to light. Facialis and motor oculi normal. Lungs and heart seemed normal. Abdomen presented nothing remarkable.

All the vertebral spinous processes were sensitive upon pressure, especially the lower dorsal and upper lumbar. No abnormal curvatures.

The muscles of the legs were completely paralyzed; he also was unable to maintain himself in a sitting posture when placed in that position. The integumental and tendon reflex of the legs was lost. The anesthesia of the skin extended to Poupart's ligament anteriorly, and posteriorly as high as the last ribs. Above this line the sensibility over the rest of the body was preserved. The muscles of the arms were greatly reduced, and exhibited a rather remarkable contraction, especially the biceps muscles, which interfered with the motion of the elbow joint. Otherwise the motility of the muscles above the pelvis, including the diaphragm, was not deficient.

There was decubitus over sacrum and trochanters. Death occurred Oct. 18th, 1879. The symptoms remained about the same. He frequently complained of a general feeling of coldness, but only once was there observed an actual chill. A high temperature persisted, oscillating between 38.3° and 40° , (100.9° — 104° F.); only once did it reach 41.5° (106.5° F.). He died in a collapsed state that had gradually augmented.

Diagnosis: The abrupt occurrence of the paralysis without antecedent sickness, together with the other symptoms above detailed, all indicated an acute lesion of the spinal cord in the lumbar part. Acute myelitis was of course out of consideration, the suddenness of the attack and absence of all prodromata excluded that. The youth of the patient, and the total

lack of all abatement of the paralysis, militated against the diagnosis of hemorrhage, either intra- or extra-medullary. The theory of embolism was not raised, because of the absence of all cardiac symptoms, and because of the great rarity of such a lesion in the cord. The etiology evidently was of the most obscure nature, only to be cleared up at the post-mortem examination.

In the cortex and medulla of the cerebrum were scattered local "cell infiltrations" of the size of a pea or less. The muscular tissue of the heart was not hypertrophied, but the free edges of the mitral valve were thickened, and on the auricular aspect there were several wart-like connective tissue excrescences, amidst which fibrin was entangled. The spleen was twice the normal size, and exhibited a number of fresh hemorrhagic infarcts. The kidneys were somewhat contracted, dense, and the cortical portion speckled yellow; in both were old shrunken infarcts.

The spinal cord in the cervical and dorsal region was of normal color, except the columns of Goll, which were grayish; in the lumbar portion it was completely softened, so that its substance appeared like a milky liquid. An artery of the larger size was found filled with disintegrated fibrin, also a number of smaller vessels, all in the lumbar region. Under the microscope the liquified cord presented debris of nerve fibres and numerous large fat globules. The local lesions of the brain proved to consist of softened tissue, with small vessels blocked with fibrin.

In consequence of the anatomical discoveries the diagnosis was made: Chronic endo-carditis of the mitral valve. Embolism in the spleen, kidneys, cerebrum, and most probably of the spinal cord. Bright's disease.—*Vienna Med. Wochenschrift*. No. 43, 1882.

NEW YORK ORTHOPEDIC DISPENSARY AND HOSPITAL.—We notice that a course of lectures on orthopedic surgery is being given at this institution on Thursday afternoons, from Nov. 6 to Feb. 15, by Dr. N. M. Shaffer. It includes lectures on diseases of the ankle, knee and hip joint, Pott's disease, club-foot, knock-knee and bow-legs, and lateral curvature of the spine. The course is free to the profession and medical students.

REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

Dystocia from Short Funis. Puerperal Fever.—DR. W. T. LUSK reported the following case: A patient was brought to the Emergency Hospital, said to have been five days in labor. Ineffectual attempts at delivery had been made by a number of physicians. She was a primipara, twenty-two years of age. Dr. Lusk being sent for at night, attempted to make a vaginal examination, and found that the slightest touch caused so much pain that he lifted the clothes and saw that the external genitalia were in a state of acute inflammation. The temperature was 103.5° F., and she was suffering intensely. The head could be seen close down by the outlet. Meconium had been escaping since the time she had entered the hospital, some six hours, the house physician having delayed calling Dr. Lusk, as it seemed the child might be born any minute. Dr. Lusk gave ether, and applied the forceps, but found much more difficulty than he had expected in delivering the head, which, however, he accomplished in a short time. He then discovered that the cord was wound a number of times around the neck of the child, and was very tense. He was about to cut the cord when the child, placenta and all were expelled together. The child was of course dead.

The woman was kept apart from all the other puerperal patients, and strict orders were given that no communication should be had between the physician or nurse of this patient and other puerperal patients in the house. On the second day examination revealed gangrene in the external genitalia. She was removed to Bellevue Hospital, all her bedding was destroyed, and the nurses and attendants were removed from the hospital. In spite of these precautions two cases of puerperal fever developed in other wards, but recovered after a severe illness.

The patient in Bellevue was treated by local application of

equal parts of the persulphate of iron and compound tincture of iodine. On the third day the parts looked much better, and on the fourth day they were quite clean, but pale. The general condition was not encouraging. Careful examination failed to discover any lesion within the vagina. The next day the house physician reported that with every vaginal injection the patient went into a state of partial collapse. Examination revealed a small slough in the upper part of the vagina communicating with peritoneal cavity. The patient soon died.—*Am. Jour. of Obstet.*, Nov., '82.

Eye Diseases Dependent upon Suppression of Menses.—DR. R. J. MCKAY reports twelve cases in which suppression of the menses was accompanied by disturbance of vision. Cases of this kind demand prompt recognition as to their etiology (before vision is too much impaired by the internal eye disease) in order that they may be successfully treated and relieved. Partial loss of vision, and inability to use the eyes in young healthy looking females, *without external eye disease*, always suggest to mind the probabilities of menstrual disturbances, and it is inquired about. Young school girls often manifest asthenopia (weak and painful sight) about the time their menses are being established, and especially if their menses become irregular from any cause, which may produce partial or complete suppression for an indefinite time. Sometimes they manifest decided congestion of optic papillæ and retinæ, and at others no internal eye lesion, with the exception of strain of their accommodation which is common to all of these cases, for they have some refractive deformity of their eyes, which, sooner or later, causes their muscles of accommodation to rebel from their over-taxing and too continuous work.—*Am. Jour. of Med. Sci.*, Oct., '82.

To Administer Chloroform in Obstetric Practice without an Assistant.—J. P. THOMAS has used repeatedly and with entire satisfaction as a chloroform inhaler an ordinary glass goblet, into which is stuffed a small handkerchief or napkin. A dram or more of chloroform is then poured upon the handkerchief. The patient then grasps the stem of the goblet and places it so as to cover both mouth and nose, and then inhales the

vapor. As the goblet does not fit closely, an abundance of air mingles with the vapor, and as soon as the patient comes under the influence of chloroform, the weight of the glass is sufficient to cause it to roll off upon the bed as her grasp relaxes its hold. By this method chloroform may be administered in obstetric cases without a skilled assistant, and much more safely than when it is entrusted to the hands of a nurse who is not skillful in its administration.—*Louisville Med. News*, Oct. 28.

Case of Triplets.—E. P. CHRISTIAN reports the case of a woman who, Sept. 20th, 1878, bore twins, a boy and a girl; Aug. 15th, 1879, bore twins again, two boys; Sept. 9th, 1882, triplets, one girl and two boys. Accordingly she bore seven children within four years.—*Phys. and Surg.*, Oct., '82.

Subinvolution of the Uterus.—DR. JOHN WILLIAMS introduced the discussion on this subject at the annual meeting of the British Medical Association. In closing his remarks he said: "The prevention of subinvolution means three things—an empty uterus, a well-contracted uterus, and the absence of fever; and I know of no better means of securing the second and third objects than the use of hot disinfecting vaginal injections and closing wounds of the perineum."

DR. ROUTH said that in his experience patients who suffered from this condition were either very young or very old, and regarded this fact as an important one with regard to causation. Another element of causation upon which he laid a good deal of stress was the "too early resumption of social duties, household work, and especially too early resumption of conjugal duties."—*British Med. Jour.*, Sept. 2, '82.

Puerperal Fever.—MR. JOHN LOWE claims that it is entirely unnecessary to withdraw from obstetric practice on account of the occurrence of puerperal fever in a patient whom the practitioner attends. He asserts that the antiseptic practice will obviate any such necessity. Under such circumstances he remains as short a time as possible in the lying-in room when attending a case of confinement, lubricates his hands well with carbolyzed vaseline and has a carbolic spray playing between the patient

and himself during operations or any manual interference. As soon as the labor is over, he washes out the uterus and vagina with carbolic acid solution. In this way he has gone through an epidemic of puerperal fever without communicating the disease to any patients, though treating that disease as well as erysipelas and scarlatina.—*Edinb. Med. Jour.*, Oct., 1882.

Twin Pregnancy with Peritoneal Dropsy.—GEORGE ROWLAND reported to Fountain Co., Ind., Medical Society the case of a patient who, during pregnancy, had a large accumulation of liquid within the abdomen, requiring paracentesis to relieve urgent dyspnea, which resulted in the expulsion of two fetuses, at about five and a half months development. The miscarriage occurred within twenty-four hours of the performance of the operation. The placenta were retained and seemed to have been absorbed; and three months after the operation the health of the patient was perfectly satisfactory.—*Medical News*, Oct. 28, '82.

Viburnum Opulus in Dysmenorrhea and Uterine Pain.—A. E. M. PURDY regards this remedy as more efficient and reliable than the *viburnum prunifolium*. In spasmodic dysmenorrhea Hale prescribes the tincture, a few drops three times a day for a week preceding the period. When the pains commence he gives it every half hour, or every fifteen minutes if the pains are severe. He has found it valuable for the severe false pains preceding normal labor sometimes for several days. It is very effective in relaxing cramps and spasms of all kinds—as asthma, hysteria, cramps of the limbs and other parts in females, especially during pregnancy.—*New York Med. Jour. and Obst. Rev.*, Nov., '82.

Parturition Among the Beniamir Arabs.—JOSIAH WILLIAMS, writing medical notes from Egypt, Soudan and the Basé country, says that he gained some information as to the method in which parturition is managed among the Beniamir Arabs from the sheik of the tribe. When a woman is in labor she is attended by some knowing old woman (they would rather die than let a man come near them). Should the labor be pro-

tracted, a rope is put under each arm and attached to a piece of wood over head. On this rope she presses each time she has a pain; and in this standing position she is delivered. Supposing the child to be in such a position as to require instrumental interference, they can do nothing, and the woman has to die. If she suffers from flooding she is put to sit in hot water for ten minutes; and then a bandage is wound around her several times as tightly as it can be put; a decoction is then given her to drink, made from tamarinds and the leaves of some tree, the name of which Dr. Williams could not learn. If she lives she is not allowed to take any water for seven days, and has nothing but warm milk.

The Abyssinian mode of conducting labor is also curious. The woman lies on her back; two stones are pushed under her buttocks; two women grasp the legs; and, just when the child is entering the world, a tray full of flour is put under to receive it.—*Brit. Med. Jour.*, Sept. 30, '82.

Paroxysms in the Female Resembling Nocturnal Emissions in the Male—DR. ERICH related the case of a young kept girl who went to the country, where she could not have sexual intercourse. She then had erotic dreams accompanied by complete orgasm. On her return to the city these continued, occurring even during the nights in which sexual intercourse took place. She states that the pleasure from the dreams is rather greater than the intercourse itself.—*Id. Med. Jour.*, Dec. 1, '82.

One Hundred Consecutive Ovariectomies without Listerian Details.—LAWSON TAIT reported to the Section of Surgery of the British Medical Association one hundred consecutive cases of ovariectomy, of which only three had terminated fatally; and one of these was from accidental suffocation, and not to be referred to the operation. Six of the patients were pregnant, and one had an acute peritonitis besides. One miscarried the second day after the operation, and then had an easy recovery; the others all recovered and have borne their children since. Four patients suffered at the time of the operation from acute peritonitis—all recovered. In two cases there was solid fibroma of the left ovary; in ninety-eight cases there was cystoma. In eleven cases the tumors were parovarian, and the ovaries

and tubes were left intact so that the operations were not ovariectomies at all. He includes these in the list for the sake of comparison of results with Spencer Wells, who has included such cases in his list. In thirty-three cases the left ovary was diseased, and in twenty-eight the right. In twenty-seven cases both ovaries were diseased. The three fatal cases were all among those from whom only one ovary was removed. In more than half the cases there were serious adhesions, but it has not been found that adhesions add in any way to the mortality. In two of the fatal cases there were no adhesions, and in the third only slight ones. In seventeen cases the tumors were almost sessile.

He attributes the success of this series of operations chiefly to: 1. The total abandonment of the clamp. 2. The adoption of Keith's method of cleansing the peritoneum. 3. The adoption of Koeberlé's and Keith's method of cleansing the peritoneum. 4. Increased personal experience. 5. Diminished proportion of cases that had been frequently tapped. 6. The complete abandonment of the use of carbolic acid or any other (so-called) antiseptic system in the performance of the operation and in the subsequent treatment; and 7. The establishment of hospital discipline and hygiene, on the best known principles, for private as well as for public patients.—*Brit. Med. Jour.*, Oct. 28, '82.

Veratrum Viride in Puerperal Eclampsia.—N. L. GUICE reports three cases in which he treated puerperal eclampsia with tincture of veratrum viride (by hypodermic injection in two of them) with satisfactory results. He claims for this agent that when given hypodermically in such doses as will reduce the pulse as low as 60 or 80 beats per minute, the convulsive paroxysms are arrested; that so long as this effect is maintained the convulsions will be held in abeyance; that thus time is secured for the natural completion of labor when it is in progress, or for the induction of premature labor when the eclampsia occurs prior to the completion of gestation; that veratrum is safely and easily administered and does not cause stupor, nor in any way interfere with the intelligence of the patient.—*Transactions of Miss. State Med. Assoc.*

MEDICINE.

Typhoid Fever, Treatment of.—DR. AUSTIN FLINT concluded a lecture at Bellevue Hospital as follows: From the study of these cases it may be concluded:

1. That by the employment of cold water externally in cases of typhoid fever, the temperature of the body may, after a variable time of the continuance of the employment, be reduced to 102° or lower.

2. That, after a period varying very much in different cases, and, also, at different times in the same case, the temperature, as a rule, again rises as high as, or higher than before the reduction.

3. That repeating the employment of cold as often as the axillary temperature exceeds 103° , the number of repetitions required in different cases is extremely variable.

4. That the sponge bath and the wet sheet with sprinkling may be employed to the exclusion of the bath-tub in the antipyretic treatment in cases of typhoid fever as well as of other febrile diseases.

5. That these modes of employing cold water may be continued sufficiently long for the reduction of temperature to 102° or lower, and repeated as often as may be required, without risk of any immediate injury, and the study of these cases furnishes no ground for supposing that a liability to complications or accidents is thereby increased.

6. Reduction of temperature by these modes as often as it arises, in the axilla, above 103° , improves the condition of the patient. The cases now studied do not afford proof that either the fatality of typhoid fever or its duration is thereby diminished. The study of these cases, however, renders it possible that this proof would be afforded by a larger collection of cases.

7. The result of the analysis of these cases, although not sustaining the statement of Liebermeister and others respecting the controlling influence of the employment of cold externally in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but afford encouragement to employ it with the expectation of diminishing the severity of the disease and its danger to life.—*Medical News.*

Pepsinized Milk for Infants.—H. Z. GILL has used and recommends to others for the feeding of infants that must be artificially fed the following: Put ten grains of saccharated pepsin, or an equivalent amount of the pure pepsin, in a pint of milk, beating it in thoroughly. Cover and set it on a quite warm stove and allow it to stand there without stirring until curded, sometimes as much as thirty minutes. When solid beat it up with a spoon, strain through a coffee-sieve, if large enough to hold the curd, or a thin, strong bag; add as much water as there is whey, and sweeten to the taste of mother's milk. In some cases it is best to add a teaspoonful of sweet cream at each feeding. In cases where it digests well a larger amount of the soft curd may be worked through the sieve. It is not of any special importance, he thinks, that the milk should be from one cow; but it is essential that it should be of good quality. The specific gravity should be between 1029 and 1033, and there should be from six to eight per cent., by volume, of cream.—*Med. Record*, Aug. 29, '82.

Mild Forms of Continued Fevers.—DR. W. W. JOHNSON classifies the mild form of continued fevers, which prevail in Washington, D. C., as follows:

I. Cases of typhoid fever with well-defined pathognomonic symptoms, the temperature reaching and being sustained at a high point— 104° F., and above—during the fastigium, ending in recovery in from four to six weeks, or terminating fatally from cerebral or intestinal complications or from hyperpyrexia.

II. Milder cases of typhoid fever in which the attack is shorter, the number of the associated symptoms is fewer, and their intensity less marked. A typical fever curve lasting eighteen to twenty-eight days is accompanied by one or more characteristic symptoms of no great prominence. The temperature may be high, 104° , during the early days of the fastigium, but there is after the eighth to the twelfth day a tendency to decline, and the mean of the high points during the acme will not be above 102.5° . Death may occur from accidents, as intestinal hemorrhage or perforation, or from the exhaustion of a relapse.

III. The series of cases included under a third class are

those which have none of the symptoms clearly indicative of typhoid fever; there are no evidences of cerebral or intestinal disorder; constipation is the rule. The evolution of the attack is usually slow, the convalescence tedious, and marked by anemia, emaciation, and debility. The course of fever lasts eighteen to twenty-one days, but the highest point may not be above 102° . In many cases the body heat is so low that without the thermometer fever could oftentimes not be detected. Yet a careful study shows that there is a preservation throughout of the character of the typhoid type. The patient lies in bed suffering but little, and wondering why he is kept there; but an indiscretion in diet, or a relaxation of the discipline suited to the case, will soon cause an elevation of temperature, with a consciousness of illness. When quinine is administered it lowers the temperature, but does not arrest the disease. During early convalescence, if solid food be given too soon, a relapse may occur which lasts as long and may be more serious than the original attack. Death may result from accidents, or perforation of the intestine or hemorrhage.

IV. In this class are embraced cases which last less than eighteen days, in which the fever is also of the continued type. In most respects they resemble the cases under the preceding class, except that the onset of the illness is sometimes sudden; there may be a rigor on the first day. The fever line reaches full development earlier, and then pursues a course like that of the cases in Class III., with the exception that it does not last so long, and that it is subject to greater departures from the typhoid type. Convalescence begins in from twelve to eighteen days. If a high point of temperature is reached, it lasts for a day or two only, when the patient is subjected to proper treatment by rest and diet. Quinine does not shorten the attack. Convalescence is slow, and a relapse may take place.—*Am. Journ. of Med. Sciences*, Oct., 1882.

Las Letalides or Mortal Eruptions.—DR. GUTIERREZ read a paper at the Medical Congress of Seville, on "Las Letalides," Mortal Eruptions, described by Dr. Rubid. The principal conclusions are as follows

1. Malignant or lethal eruptions accompany cancer with extraordinary frequency, and their recognition possesses a clinical interest of great importance.

2. They are histologically combined in a more or less complex order, following for the most part a natural gradation in their development when epithelial carcinoma serpiginosa is concerned.

3. In the other species of cancer they are the manifestation of the local infection.

4. They make manifest the diagnosis of these neoplasms when originating in glandular organs, and the ganglia in the vicinity now tumefied; it is also permissible thus to classify special ulcers that coincide with tumors in the same region.

5. Their presence indicates the malignity and diffusion of the neoplasm they accompany, and in so far the disastrous fate of the individual.

6. As these *letalides* are not destroyed along with the cancer, the cure is impossible, since from each one we see new germs budding.

7. The greater number of relapses of cancers are due to the rapid development that these *letalides* acquire after the expiration of the former.

8. When any of the varieties of this malignant eruption exists in any case, the surgeon should never attempt an operation if he has no wish to shorten the life of his patient, and this even when the nearest lymphatic glands are not tumefied. —*Edinb. Med. Jour.*, Oct., '82.

Poisoning by Male Fern.—The *British Medical Journal* reports a death at Colombo from poisoning by male fern, arising from an error in the sixth edition of *Naphey's Modern Medical Therapeutics*. The prescription that was copied was:

R.	Ex. ether. filicis maris,	-	-	fl. ʒiss.
	Pulv. kamalæ,	-	-	ʒij.
	Mucilag. acaciæ, syrupi simplicis,	-	q. s.	
	Aquæ cinnamomi,	-	-	ad. fl. ʒiij.

M. S. Half to be taken at bed time and half at 2 A. M. It is referred to Dr. Wm. Brinton, of London, but the *Brit. Med. Jour.* thinks must have been taken from a paper of Dr. John Brunton which appeared in the *Glasgow Med. Jour.*, of April, 1865, but the dose of the male fern in that paper was one and a half drams and not ounces.

Compound Cathartic Pills.—J. D. PALMER suggests to the revisers of the U. S. P. a modification of the official "pill C. C.," which he says has been well tested in the South and found to render them less drastic and more cholagogue in their action. The gamboge is diminished and the calomel increased.

R. Ex. colocynth co.,

Calomel, - - - - āā.grs. $1\frac{1}{3}$.

Ext. jalap, - - - - gr. 1.

Gamboge, - - - - gr. $\frac{1}{3}$.

M.

—*Amer. Jour. Phar.*, Nov., 1882.

Salicylic Acid in Tonsillitis.—EDWARD MACKEY is of the opinion that the value of salicylic acid in tonsillitis is not duly appreciated by the profession. He has found it very valuable in relieving suffering, reducing pyrexia and expediting recovery. He administers ten-grain doses every two to four hours. He does not expect the same relief when suppuration has taken place (quinsy). The acid may readily be administered in solution in liquor ammoniæ citratis, which, when properly compounded, makes a colorless solution which agrees well. [A similar solution may be made with the liquor ammon. acetat. with or without the addition of a few drops of aqua ammoniæ. Ed.]—*Brit. Med. Jour.*

Phenic Acid Treatment of Typhoid Fever.—RAMONET asserts that phenic acid does not act simply as an antipyretic in typhoid fever; it exerts a further influence on this affection at once antizymotic and curative; that the dose of phenic acid in injections should never exceed four grammes (one dram) per diem; that there is danger under this treatment of secondary accidents, of which the most frequent and dangerous are pulmonary congestion and phenic cachexia, and that convalescence is a period that is fraught with great danger to patients, who should therefore be kept under the strictest surveillance; finally, that tonic treatment should always be combined with phenic acid treatment. He claims that this treatment shows the best results of any mode of treatment yet adopted.—*Chic. Med. Rev.*, Sept., 1882.

Rheumatism and Gout.—ALEXANDER HARKIN has treated a considerable number of consecutive cases of acute rheumatism and a less number of cases of gout, by the application of blisters, 3x4 to 3x6 inches in breadth and length over the cardiac region. The relief from pain was prompt, and the complete restoration to health much more rapid than any other treatment that has been adopted.

He regards rheumatism as "essentially a specific form of endocarditis of neuropathic origin, generally allied with myocarditis," which, in its unchecked progress, "speedily modifies the composition of the blood, the innervation and calorification of the body," giving rise to lesions in the textures, the joints, pericardium, pleura, neurilemma and meninges. He accepts the view of Pfeuffer and Heuter, who consider cardiac disease as the primary change and articular troubles as the consequence. —*Brit. Med. Jour.*, Sept. 23, '82.

Ergot in Typhoid Fever.—M. DUBOUE has been using ergot in typhoid fever for seven years now, and has treated 36 cases, of which 11 were very serious, 14 serious, and 11 of average severity. In these 36 cases he has had two deaths, which gives a mortality of 5.55 per cent.

In addition to these he reports 15 cases that have been treated in the same way by other physicians. This gives a total of 51 cases, 16 very serious, 20 serious, and 11 of medium severity. In the 51 cases there were three deaths, a mortality of 5.80 per cent.

As to the manner of administration M. Duboué gives the following directions:

Ergot is applicable to all the periods and all the forms of typhoid fever without exception.

It is necessary to be sure before the grains are pulverized that they are of normal appearance and have undergone no alteration.

The medicament may be administered either in unleavened bread or in wafers, in the dose of 25 centigrams (4 grains) to each wafer, either in powder, in water, pure or sweetened, wine, milk, bouillon or some syrup. It is better to pulverize the ergot with half its weight of sugar.

The dose ought to be broken into four, six or eight, taken during twenty-four hours, as much as possible a little before or immediately before the injection of food or drink. The medium doses ought to be from 1.50 gram (grs. xxiii) to three grams (grs. xlv) per day for an adult, and 0.40 to 1 gram (grs. vi-xv) for children 6 to 12 years old.

The temperature determined by the thermometer is the guide for the increase or diminution of the dose, together with the general condition of the patient.—*L'Union Méd.*, September 7, 1882.

SURGERY.

Tumors of the Bladder.—ALEX. W. STEIN, after a full and careful study of the literature of the subject, taken in connection with some personal observations, formulates the following conclusions:

1st. In a few remarkable instances, in the case of women, apparent recovery seems to have resulted from a spontaneous expulsion of growths from the bladder. But in general it may be said that tumors of the bladder, if uninterfered with, are inevitably fatal. And although they may exist for several years without creating much distress, a fatal termination almost invariably ensues in a few weeks or months from the outbreak of active symptoms.

2d. Death resulted most frequently from hemorrhage and from the effects of mechanical obstruction to the outflow of urine. Hence, the indication would be to remove the growth while the general condition of the patient is yet favorable for an operation; before the subject has become exhausted from loss of blood, or the kidneys and bladder have become so much diseased as to make recovery impossible, even in the event of the successful extirpation of the growth.

3d. In women, because of the accessibility of the bladder to direct exploration, there is no excuse for temporizing, and the surgeon should lose no time in acquiring an exact knowledge as to the existence, nature, etc., of the tumor, and, if practicable, attempt its removal as early as possible.

4th. The results thus far attained by surgical interference, in the case of women, could scarcely be more satisfactory, and excepting one instance, in which the bladder was accidentally perforated, it does not appear that the fatal termination was precipitated by the operation in any of the cases.

5th. In the male, the propriety of operative interference must necessarily always be a more serious question, because of the occasional uncertainty of diagnosis, and because of the gravity of the undertaking necessary for the removal of the growth. Nevertheless the results, thus far attained by operation, are most encouraging and in every way justify a repetition of the same.

6th. From a number of autopsies made, we learn that the number of successful operations might have been multiplied—first in those cases in which no operation was attempted, although the growths could have been easily removed and with apparently every prospect of success; and again in those in which the operation was too long deferred, and which, it is reasonable to assume, would have terminated successfully, had the same been undertaken at an earlier period.

7th. Given a positive diagnosis of tumor, the absence of severe secondary symptoms should be no excuse for deferring the operation. On the contrary, the earlier the growth is removed, the better the prospects of complete recovery. With a healthy bladder and kidney, cystotomy is not so dangerous an operation as to warrant any delay.

8th. Evidence strongly pointing to the existence of a tumor with severe catarrhal symptoms, or with spasm of the bladder and much suffering, will often justify an operation; for if a tumor is found, its extirpation will afford the only chance for life; and if no growth exists, or the bladder is occupied by an irremovable cancer, the cystotomy may at least afford temporary relief from suffering,—*Tumors of the Bladder, By A. J. Stein*, pp. 93, 94.

The Contagion of Leprosy.—Probably no disease has so excited the fears of mankind and the attention of physicians throughout all historic time as leprosy, for no other has produced such hideous deformity of the individual or protracted a termination so uniformly fatal through such prolonged pe-

riods of moral suffering; none has spread itself more widely at different epochs among all nations, or has left so marked an impression upon the record of their social and religious laws.

PROF. JAMES C. WHITE contributes a valuable paper tracing the origin of this disease in the Hawaiian Islands, New Brunswick, Cape Breton, and the United States, finding evidence that it is communicable from man to man by direct transference, or facts which can be interpreted in no other reasonable way; and this conclusion he accepts as supported by the general history of the affection in past times as related by medical chroniclers. He accordingly feels justified in forming the following conclusions: Leprosy has spread under recent observation, when introduced into a previously unaffected stock, in so rapid and general a way as to prove that it may diffuse itself universally through a nation independently of the action of hereditary tendencies. There is no evidence to support the assumption that this wide and quick extension of the disease has been caused or aided by any peculiarities of soil, climate, diet, or other telluric agency in Hawaii. The history of the affection, on the other hand, leads to the strongest conviction (scientific proof is wellnigh out of the question) that it is communicated directly from person to person, while the peculiar customs offer a satisfactory explanation of its unparalleled spread. The history of the little center of disease in Louisiana, watched fortunately from its very beginning, leads to the same conclusion that it affects persons not under any law of heredity, but through the intimacy of personal relationship, the customs and morals determining largely the rapidity and universality of its spread.

As regards the bacilli of leprosy, Dr. White believes that there is nothing in the history or pathology of leprosy incompatible with the theory of its parasitic nature. Should a bacterium be constantly found in the disease, in the leprous tissue itself, most pronounced in that in process of development, presenting the same characteristic features in cases occurring in all parts of the world, and not found in human tissues in connection with other diseases or in their healthy condition, it would constitute strong presumptive evidence that this parasite was the specific cause of leprosy. The proof would be positive if its inoculation were found to reproduce the disease.

As yet, however, proof of this character has been merely negative. He is a strong advocate of the isolation of lepers.—*Am. Jour. of Med. Sci.*, Oct. '82.

Treatment of Syphilis with Subcutaneous Sublimate Injections.—JNO. V. SHOEMAKER strongly recommends the subcutaneous injection of corrosive sublimate as the most speedy and certain way of eradicating syphilis, while it does not derange the stomach as does the administration of mercury and potassium iodide by the mouth. In the treatment of 113 cases he gave 2,132 injections in the course of 206 days, and in no case has had any inflammation or abscess. He uses a one per cent solution, commences with one-tenth grain doses. In weakly subjects he continues this dose through the treatment; in the more robust he increases it by one or two minims daily until the disease shows signs of abating or the patient gives evidence of the constitutional effect of the drug.

He recommends its more general use by the profession. Care should be taken that the syringe be clean, the needle bright and not too short, that the injection be made deep into the cellular tissue and by gentle friction be dispersed as thoroughly as possible. Tonics and good food should be given at the same time.—*Advance Sheets of Trans. of Am. Med. Assoc.*

Dislocation of the Spine—Reduction—Death.—J. S. WIGHT reports the case of a man, æt. 62, who fell into the hold of a ship, a distance of about fifteen feet, striking the small of his back upon the edge of a bale of jute. The doctor saw him on his arrival at the Long Island College Hospital about 10 A. M. There was great shock, complete paralysis of sensation and motion in the lower limbs; severe pain in the back; the last dorsal vertebra with all the lumbar vertebræ projected backwards; the eleventh dorsal vertebra with those above projected forward, the antero-posterior displacement amounting to about an inch. The diagnosis was dislocation of the spine between the eleventh and twelfth dorsal vertebræ, with fracture, the cause being direct violence.

On consultation at 2 P. M. it was decided to attempt a reduction of the dislocation. At 4 P. M. this was done as follows:

Dr. Atkinson, reaching over from above, put a hand in each axilla, while Prof. Ford and one of the hospital internes each took hold of a foot. Dr. Wight placed an ordinary pillow about equally under each segment of the dislocated spine; he then placed one hand under the upper part of the lower segment and the other hand upon the sternum. While the assistants made extension in opposite directions, he then made pressure, when about two-thirds of the displacement disappeared with slight crepitus. Two or three repetitions of this maneuver did not effect any further change in the condition. Then Dr. Atkinson raised the shoulders of the patient, making extension at the same time. By this means, as Dr. Wight pressed upon the sternum and lower segment of the spine, complete reduction was effected. When the effect of the ether had passed away the condition of the patient was good.

The following points of interest are mentioned :

There was retention of the urine from paralysis of the bladder, complicated with stricture of the urethra, which rendered it impossible to get a catheter into the bladder. However, a whalebone guide was introduced, and the next day a divulsor was passed over the whalebone guide into the bladder and the stricture divulsed to the size of a number twelve sound.

Two or three days after the reduction of the dislocation, the patient could make slight motion of his lower limbs, he could perceptibly rotate the feet and legs. He would will to move his legs, and after some twenty-five or thirty seconds the rotation of the feet and legs could be seen. This slight return of voluntary motion lasted seven or eight days and then completely disappeared. He never had the least sensation in his lower extremities; all sensation so far seemed to be lost. Hence it would appear that the sensory tract was more damaged than the motor tract.

The bowels were moved by stimulating enemata, but were very constantly distended with gases, giving considerable annoyance. The quantity of urine varied from 32 to 52 ounces in the twenty-four hours. The temperature varied from normal to 102°; pulse from 60 to 104 per minute.

No post-mortem was allowed.—*Med. and Surg. Reporter*, Nov. 11, 1882.

Sponge Grafting.—W. L. ESTES has practiced and recommends grafting small pieces of sponge upon indolent chronic ulcers. He selects fine surgical sponges, has them thoroughly beaten to remove sand and other impurities, then has them thoroughly washed in cold water and soaked for forty-eight hours in dilute hydrochloric acid (about officinal strength), and lastly placed in a well stopped bottle containing a five per cent. solution of carbolic acid, in which they must remain for at least a week. In grafting, the ulcer must be disinfected with a two per cent. solution of carbolic acid, taking care to avoid rupturing any capillary, as hemorrhage into the bits of sponge seems to prevent their absorption. Hands, instruments and everything likely to come near the ulcer must also be disinfected. As many pieces of sponge, about one-tenth inch in size, as may be wanted, are now snipped off and dropped into a vessel containing a two per cent. solution of carbolic acid. These are taken out one by one with forceps and gently laid among the granulations upon the ulcer. A protective and full Lister dressing is then applied, which is usually removed on the third day and repeated as necessary, strict antiseptic precautions being maintained for a week at least. On the third day, as a rule, the grafts are found adherent, and it will be observed by the naked eye that each graft is surrounded by a faint, white zone, which a magnifying glass resolves into radiating bands of lymph inclosing minute blood vessels, which run into the sponge. Under the microscope the interstices of the graft are seen to be pierced in every direction by a network of capillaries, and a large number of nucleated cells permeate its whole substance. After seven days the grafts are seen as small, white points in the granulations, entirely covered by lymph and firmly embedded in the granulations. Under the microscope, the capillaries and large nucleated cells fill the sponge everywhere, and the sponge proper is beginning to disintegrate; and from this time the grafts are steadily absorbed. In fourteen days they are usually not to be seen, or only indistinctly under the granulations.

Comparing sponge grafting with skin grafting, he says :

1st. Sponge grafts are available when skin cannot be obtained. They cause no pain in preparing them, nor any annoying little wounds as additional tax on the healing powers of

the patient. They do not subject the recipient patient to the danger of inoculation with specific diseases, as skin may do when taken from a cachectic donor.

2nd. Sponge grafts take more surely; invariably, when proper care is exercised.

3rd. Sponge grafts stimulate marginal activity much earlier and to a much greater degree than skin.

4th. In sponge grafting, skin or cicatricial islets are much slower of formation and not as sure as after skin grafting.

5th. Healing seems equally if not more rapid with sponge than with skin.

6th. Resulting cicatrices are equally good and contractions equally prevented.—*Med. News*, Nov. 25, 1882.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY CORRECTION.

By some carelessness of the reporter and, we must admit, of the editor as well, some gross errors crept into the report of this society in the last number of the *COURIER*; and as a mere act of justice to the speaker who was wrongly reported we call attention to the fact and to the statements which he really made.

On page 568 Dr. Todd is made to say: "There is a specimen in the museum of the Missouri Medical College of a fracture involving the whole posterior part of the arch of the four lumbar vertebræ, in which there seems never to have been even a ligamentous union." What the doctor really said was, that the *fourth* vertebra was fractured, and that there had not been osseous union, but union by ligament. Again, below that point on the same page, instead of saying that "those animals which have great flexibility are without spinous processes," the doctor said, that those animals which have great flexibility of the spine have diminished spinous processes at the point of greatest flexion in the back, and that the spine of a lion in the college museum lacked altogether one spinous process in that region.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL
SOCIETY.

Stated Meeting, Oct. 19th, 1882—Dr. G. M. B. MAUGHS, Pres., in the Chair.

MORPHIA AND THE MORPHIA HABIT.

Dr. Papin read a paper on the hypodermic injection of morphine, or morphine by the mouth, in uterine colic, whether whether caused by pregnancy or dysmenorrhea. (Vid. p. 18.)

Dr. Coles.—How long was it after these women conceived that they commenced to suffer the pain?

Dr. Papin.—In the instance of my first patient, it was probably a few days after her conception, at least only a few days after her menstruation, that these manifestations occurred. She had been out a good deal, visiting, and going to balls and the rink, etc. This night, while dressing herself, she was taken as I have described, and gave scream after scream. This pain lasted the whole night.

Dr. Prewitt.—Was pregnancy, in the second case, the cause of the pain?

Dr. Papin.—Yes, sir. She had one or two children in the usual way; at the age of twenty she was pregnant with the third child.

Dr. S. G. Moses.—I am not very well prepared to make any statement in regard to this hysterical colic. As for the use of opium, I must acknowledge that I hate to give it up; I hate to give up the hypodermic use of morphine very much, even though there is danger of allowing it to grow into a habit. In my days, I recollect a case in which the quantity of laudanum taken was simply immense. For years, a lady—an unmarried lady—had suffered from hysterical spasms—general hysteria—and the only thing that relieved her was the curious combination to lose some blood and take laudanum. I saw her some years after the habit was formed, and she fairly took laudanum by the gallon. She took, every night before going to bed

eight ounces of laudanum, and she was living fifteen years after I first saw her. She lived to be about fifty years of age. It was a very remarkable case. She was bright, intelligent, and fortunately she was never married; the habit was formed, and I did not see any of the terrible effects which have been so graphically described—the horrors of opium eating. In this case she never suffered, except when she wanted opium; she never did without it. She died finally of dropsy—a general dropsy. That is all I know about her death, that she became excessively anemic, and finally died. I don't think we ought to give up its use. I know Dr. Papin doesn't mean that we are not under any circumstances to use it. The hypodermic injection, I think, is far more dangerous than taking it by the mouth. I know a young man who, for ten years or more, has been taking opium hypodermically every day. He has strength of mind enough not use the syringe himself, he always goes to some physician, and the dose very seldom exceeds a quarter of a grain; this satisfies him for twenty-four hours. He suffers intensely from neuralgia of the right eye. The history is this: when he was a boy he became habituated to the use of pretty strong drink, and his father, finding it out, gave him a severe lesson with regard to drunkenness. He gave up drinking, and for the last ten or fifteen years has taken a quantity of morphine pretty nearly every day of his life. His arm is one scar from shoulder to wrist—both arms are so. I have tried various plans—have given water injections instead of morphine; I have scolded him and shamed him. I don't believe that man could be put into a position in which he could do without the use of stimulants. He would die without them. While upon this subject, I recall the case of a lady, an habitual opium-eater who went to Paris; she was taken with pains, and couldn't buy any morphine very well, so she sent for a physician; he gave her the ordinary dose of morphine, about one-eighth of a grain, and she really died absolutely for the want of stimulants. I think it is a dangerous experiment to stop it too suddenly; I think the best way is to withdraw the narcotic gradually.

While up I will speak of the case of a child to which the mother was in the habit of giving laudanum. I was sent for to see the child one evening, and found it very ill. Not know-

ing anything about the habits of the child, I went again next morning, and found the child laid out in a very strange place. The mother had put the child on the sideboard. I went home, and pretty soon a boy came running over to tell me that the child had come to life again. I went, and found that the child was living; and it lived for some years after. The mother was in the habit of giving it a teaspoonful of laudanum three times a day, and it didn't want to do without it. I commenced to diminish it drop by drop until, in the course of four or five months, I succeeded in entirely withdrawing the stimulant. The child improved very much; it never took to it again. I saw the child four or five years afterwards. I think it is a little dangerous perhaps to withdraw stimulants so suddenly from a patient who has been long habituated to them, whether opium, whiskey or tobacco.

As regards the producing of abortion, I think that if the mother is suffering from nausea so that she is starving to death, where it is certain that both mother and child must die from starvation unless we destroy the fetus, where the salvation of the mother depends upon the destruction of the fetus, it is our duty to save the mother's life. I intend to speak more fully upon this subject at some other time. I have seen a number of cases in which it was absolutely necessary to produce abortion. Not very long ago Dr. McPheeters called me in to see a case of a lady who had been vomiting—vomiting—vomiting for weeks. She was reduced to a mere skeleton. She retained nothing on her stomach, not even a teaspoonful of champagne. I was assured that everything had been tried in vain. I examined the uterus, and cauterized the neck, thinking that the trouble might arise from a slight abrasion, as this in some instances relieves these cases. The vomiting went on. I introduced a probe into the uterus. The sound went up to the fundus; there was no discharge, and I began to think that I had made a mistake, and that there was no pregnancy. The nausea was stopped instantly; in three hours after that she took nourishment, and at the end of six, eight or ten days the fetus passed away. In such cases I look upon abortion as justifiable.

Dr. Papin.—I didn't intend to bring that issue up, still I intend that to stand upon its own bottom, and I am always

ready to fight a fair, square battle. As far as the treatment of opium-eating is concerned, whether taken hypodermically or by the mouth, I will state that I visited Dr. Kane's hospital in New York two years ago, where he treats none but opium habitués. He gives no opium, and when the desire is very great they put the patient into a warm bath. The treatment at Brooklyn is identically the same. They give nothing, and allow nothing; as soon as the patient's stomach will bear food he is given it, and not till then. They use the bath with wonderful effect.

Dr. Barret.—How long do they keep the patient in the bath, and how often do they give them?

Dr. Papin.—They are given three or four times a day, for a few minutes.

Dr. S. G. Moses.—How many get well?

Dr. Papin.—They all get well.

Dr. S. G. Moses.—Don't you think they go back to it?

Dr. Papin.—Yes, some of them will go back to it anyway.

Dr. Prewitt.—What were the symptoms in those children where the mother or nurse prescribed Mrs. Winslow's soothing syrup? What were the symptoms at the time of death?

Dr. Papin.—I did not see the children. I saw the lady after the death of the last child, and got the history from herself. Dr. Yarnall first called my attention to the cases last spring in regard to the subject of the opium habit. I think he delivered her last two children, and he can probably give a better account of the cases than I can.

Dr. Yarnall.—I delivered the woman three or four years ago, and again quite recently. The first child lived several weeks; the last child lived four or five days. The children seemed extremely precocious. The child that lived three or four weeks was so precocious that one would imagine it was about three or four months old; it held up its head. It had purely nervous paroxysms from the time it was born. They gave it paregoric at first, and afterwards began giving it Mrs. Winslow's soothing syrup. Nothing else would quiet it. The second child, the one that I delivered recently, a few hours after it was born began to have slight convulsions, and after I left the house they resorted to paregoric, and quieted it. A few hours afterwards the mother sent out and got some soothing syrup,

and gave some to the child. This quieted it, and she kept giving it for several days. At first she gave just enough to quiet it. On the fifth day it died of convulsions. Both children held their heads up, and at the time of birth their appearance would lead you to suppose that they were probably a month or two old. The heads were very large. This lady goes to bed and seems to pass into slumber; but the husband says that as he lies at her side he notices violent convulsion of the muscles of the body. If he wakes her she seems to be in no pain, and does not seem to be conscious of the paroxysms.

Dr. S. G. Moses.—How long has she been in the habit of taking morphine?

Dr. Yarnall.—She began to take morphine some thirteen years ago. She took eighteen or twenty grains a day. Her husband is a very active business man, and had to leave morphine in her hands. During the last two years she has increased it to a drachm bottle a day. He says occasionally she will take part of a second bottle, making as much as eighty grains a day. Within the last two months the habit has been gaining. The morphine was first given after the birth of the second child.

Dr. Prewitt.—Was there any difference between those children and the last?

Dr. Yarnall.—They are both living, and are bright and healthy.

Dr. Prewitt.—Were they less precocious than the last?

Dr. Yarnall.—I can't say, as I didn't see the children at their birth. This woman sleeps about eighteen hours a day, and the only inconvenience she has is constipation, with which she is troubled. She told me that on one occasion she went to the country with the view of quitting the habit; she remaining forty-eight hours, and she said that if a piece of her finger had been cut off every five minutes she could not have suffered more agony than she suffered after the first twenty-four hours had passed. She came back, and commenced taking morphine again.

Dr. Ford.—Mr. President, this point in regard to the use of morphine is well taken, but, honestly, I am inclined to believe that we must leave a good deal of this matter with the patients themselves. It is highly proper that we should relieve our

patients—we are obliged to do it; and a part of the responsibility in these cases, the much greater part of it, rests with people themselves. Our profession and business is to relieve pain and combat disease; our success depends upon it, and we must administer remedies which will cure pain, and which will do it very quickly sometimes. So far as constituting ourselves the conservators of public morality is concerned, with regard to opium, that is a good idea to some extent; but it is absolutely necessary that we use it in all sorts of cases; we cannot get along a day without it. I don't expect to get along without it. With regard to the use of the hypodermic syringe, I think it is a good way to administer morphine. It is not necessary to let the patient know what you are using; if the pain is local we can make the application of the remedy local. It is better, and less trouble, to give the remedy that way; it does not destroy the digestion.

So far as these cases which Dr. Papin has reported are concerned, I have seen one or two cases in which I have had a vast deal of trouble in incipient pregnancy; it sometimes simulates inflammation of the womb. There is also an analogous case. The physician is sent for hurriedly to see a patient who has symptoms of congestion of the womb and ovaries attendant upon menstruation; there is a spasm, very acute symptoms and a great deal of pain in the lower abdomen; the physician is sent for in a hurry; the nervous symptoms—the hysterical symptoms—are predominant in these cases. I have found but little difficulty with these cases. I advise a warm application instantly to the hypogastric region, take a sixth of a grain of morphine and put it on the tongue of the patient, and write a prescription containing chloral—about six grains at a dose—tincture of valerian, syrup and water. There is one other little point in regard to the opium habit that I want to speak about. I have had some little experience in treating such cases. I treated a well-known druggist of this city who, I think, in former times had syphilis. There were purple patches upon the body, and the legs were enormously swollen. I put him on large doses of iodide potassium, and stopped his morphine peremptorily, and gave him large doses of quinine. Well, in a few days he wanted morphine, and I allowed him to have a grain at the outset and kept that up for a week.

Finally it was diminished to half a grain, while he still took large doses of quinine—from forty to sixty grains. At the end of three weeks he was taking no morphine at all. This treatment was continued with excellent results. I gave heavy doses of iodide of potassium, ranging from twenty-five to thirty and even forty grains three times a day. This man finally got well, and went to work again. After a time he resumed the opium habit. Quinine acts as a stimulant in these cases, and it is the very best thing we have to replace morphine.

Dr. G. A. Moses.—Dr. Ford's method of relieving this coincides with mine. I think that Dr. Papin should suggest some remedy to take the place of the one which he dislikes, and which perhaps many of us dislike. I confess I don't know how to do without it. I prefer to administer the morphine hypodermically, as it is then out of the reach of the patient. I think it is much better than leaving it to be taken by the patient herself. Except where we know the patient can be trusted, it is a dangerous practice to put it in her hands. Very frequently these patients know they cannot trust themselves with stimulants. I think it is much better to have it administered by a physician or a competent nurse. I must confess that I know nothing that can take the place of morphine in these cases.

Dr. Papin.—Some years ago Dr. Boisliniere and Dr. Engelmann, after a due consideration of the facts surrounding a patient whom these gentlemen saw at the time, said that they couldn't see how it was possible to save the patient's life otherwise than by producing an abortion. She had been vomiting incessantly; at last I gave her a hypodermic injection of morphine, and that stopped the vomiting. But I don't believe in substituting anything for the morphine when they have formed the habit. I think it only prolongs the agony. It is better to stop it and make use of the warm baths.

Dr. Engelmann.—I regret very much not having been able to hear the reading of Dr. Papin's paper, more especially as he has threatened some antagonism; but from what I heard of the discussion I think, however, I agree with him most thoroughly in certain points, and I decidedly advocate the use of opium in such cases of obstinate vomiting of pregnancy as are not

relieved. I have a letter with me which I received recently from Kansas City, regarding a patient whom I treated some years ago under similar circumstances. The case was unusually distressing; there was suffering in so many ways—symptoms of intense disease—symptoms of peritonitis and pelvic cellulitis, with exquisite pain. Upon questioning her, I found that she had suffered in the same way three or four years before, and that it then occurred in the very early stage of pregnancy, which at that time ended in abortion. The vomiting in this case was persistent, the pain intense, and, as I say, decided symptoms of peritonitis, although I did not believe that it existed. After all ordinary remedies had been used in the attempt to stop the vomiting—bismuth, pepsine and whatever might affect the stomach—without effect, we gave morphine, and this did ease the pain and, to my great astonishment, stop the vomiting. The morphine was given subcutaneously. I think the hemorrhage continued until the abortion was in progress. I completed it, and after this the entire train of alarming symptoms suddenly stopped; but it was the morphine injection that first gave relief in this great agony and checked vomiting. I remember, also, a case of a well known society lady who died by reason of inanition, in consequence of excessive vomiting. Nothing seemed to have any effect in her case that was attempted but local medication; this alone affected her vomiting. The application of carbolic acid, tannin and glycerine, especially carbolic acid, to the os gave relief. When the patient came into my hands she was so low that, although the vomiting was speedily checked, the conditions were such that we could not get her stomach into a satisfactory condition. Miscarriage was produced, and very successfully, without the loss of a drop of blood, nevertheless she died. She had been going on with this intense vomiting perhaps for six or seven months, and although checked by local means, and the womb relieved of its contents to make sure of affording the stomach complete relief, exhaustion was so great that death followed.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Sept. 5th, 1882—DR. MUDD in the Chair.

NEUROMATA.

Dr. Mudd.—I have some specimens here—some neuromata, that are quite large and quite well marked. They were removed from two different patients. In one they appeared remarkably quick after amputation. The patient was aged 29 years; the amputation occurred on the 24th of June, 1880. The stump healed by first intention, and the patient was out of bed in about three weeks and was moving about in 22 days. He observed very soon after the healing of the stump, notwithstanding the fact that it healed by first intention and without inflammation, that there were sensitive points. The pressure of the clothes produced the spasmodic twitching pains that accompany and follow the presence of neuromata. This disturbance continued to become more marked for three or four months after the operation and continued until August, 1882, when I removed the neuromata—one from the anterior tibial, and the other from the posterior tibial nerves.

The other specimens were taken from the arm of a man upon whom amputation has been made a number of years ago. The stump was very much emaciated from disease. The man had suffered very much. The patient was entirely relieved by their removal.

Dr. Leete.—These tumors all form on the end of the nerves, do they not? They are what was formerly called clubbing of the nerve.

Dr. Mudd.—Yes, sir.

SARCOMA OF THE LIVER.

Dr. Mudd.—The specimen which I now present is somewhat remarkable. The history of the case, as given by the patient, is as follows: Mrs. T., aged 41, had been healthy until 18 months ago; had had diarrheal trouble during this time more or less persistent. Nine months ago she first observed a tumor about the size of an egg near the median line, below the umbilicus, which presented above the pubes, and was distinctly movable. It would fall from one side to the other by

changing the position of the patient. It has been growing steadily. Her periods have been regular until five months ago, when they ceased. Have not been excessive; she has never flooded. The tumor has grown more rapidly since the subsidence of the menses. These notes were taken by the attending physician. The patient lived some distance out of the city, and I saw the patient in consultation with another physician, and made the following notes

"Found tumor round in shape, regular in outline, extending above the umbilicus, inclining rather to the right side, easily movable, moves farther to the right than to the left side, not painful except upon firm pressure, when it is slightly sensitive. Vaginal examination shows no fullness in Douglas' cul-de-sac. Tumor moves freely without marked motion of the uterus. It presents well down on the pubes, and extends well above the umbilicus in the median line, being most prominent between umbilicus and pubes. I thought at the time that I could detect some fluctuation. The neck of the uterus was not enlarged, but there is slight erosion of the neck. The depth of the uterus was two and a half inches. The body was slightly inclined to the left side, the tumor resting on the right side."

I saw her again July 30th, and upon an examination I found that the tumor had increased somewhat in size, become more firm and that the walls were more elastic. The operation was commenced with the belief that the tumor was connected with the ovary. Of its character I did not feel so certain. I thought after the first examination that it was an ovarian cyst, but after the last examination I couldn't detect any fluctuation, and though that if it was a cyst it had very thick contents, or that it was probably malignant in character. I thought from the free motion that I could remove it, and as the patient was suffering very greatly, and was very anxious, I thought it a justifiable procedure.

The incision was made in the usual way in the median line, and we found that the tumor was a sarcoma of the liver and adherent to the omentum low down upon the right side. The tumor was pretty firm and very vascular. The surface of the tumor that was adherent to the liver was as large as the palms of two hands, and the liver substance was spread out over it,

being thicker above the point where the surfaces joined and were directly connected with the liver. The peritoneum, from liver to tumor, also seemed to be continuous. Upon examination we found that the tumor had a distinct capsule, and I felt that I could enucleate it from the liver. I separated the adhesions between the omentum and tumor. It bled very freely, both from tumor and from omentum side. I did not stop to tie the vessels at the time, but simply separated the adhesions and enucleated the tumor as quickly as possible. The part where it was removed from the liver was also a bleeding surface and presented the raw liver substance. I compressed the whole for the time being, and secured the omental adhesions by ligatures. The parts which had been adherent to the tumor were tied and the ragged ends cut off. I then brought the two surfaces of the liver together, took some ligatures and sewed the peritoneal surfaces together—the margin rather—so as to make a pretty firm sac of that portion of the liver that had been attached to the tumor. I then inserted a drainage tube, drew it with the liver up to the abdominal wound and fastened the liver substance, in which I put a suture, to the upper extremity of the wound made for the removal of the tumor, and carried the drainage tube out through the opening, leaving the drainage tube sticking up through the liver substance out of wound the in the wall. The patient was feeble and we expected bad results, but, on the contrary, she had but few bad symptoms. She went along without any fever and without any very marked shock. She recovered readily from the shock and very soon regained her appetite. She suffered little from nausea or sick stomach. I have not received the notes of the after-treatment from the physician in charge, but, suffice it to say, it is now four weeks since the operation, and she has been up and about the room sitting in her chair for the last ten days. The wound has healed, except a small point, from which there is a discharge of a few drops only during the 24 hours.

Dr. Pollak.—What do you mean by saying that the liver was spread over the two surfaces of the tumor?

Dr. Mudd.—Well, the liver was spread over the tumor somewhat as this cloth might be spread over this mass, and it pre-

sented a raw surface on each side. After enucleating it I brought these two surfaces together and put the drainage tube in. The site of the tumor, its mobility and its feeling led me to think it was connected with the ovary, whereas its origin and chief attachment was in the left lobe of the liver.

Dr. Love.—That case reminds me of one that I heard reported by Dr. Brown, of Texas, who took his wife to New York, supposing that she was suffering from an ovarian tumor, and finally decided to let Dr. Bozeman operate. Dr. Bozeman diagnosed an ovarian tumor, and when he operated he found that it was a cyst connected with the pancreas. She made an excellent recovery. I saw the lady when she was here on the way to their home in Jefferson, Texas. She was in excellent condition. I afterwards heard from Dr. Brown, six or seven or possibly eight months after the operation, and he thinks the tumor is returning.

Dr. Leete.—I think the case the doctor has reported is a very interesting one. I should not have been so hopeful of the recovery of these cases if I had not fallen upon some very interesting literature in regard to what the liver could withstand something more than a year ago. Indeed, we all remember shortly after President Garfield was shot what a flood of literature there was in regard to what the liver would bear. It out-Hammoned Hammond. One of the most interesting groups that came under my observation I found in a copy of the *Republican*. It set forth, in brief, that a soldier in some Virginia regiment, who bore the marks of many bullet wounds, had upon one occasion in the earlier part of the war been found prostrate and almost in a collapsed condition on the field of battle, insisting that he had been shot through from side to side, and, as I remember, he thought that perhaps he had been shot through the liver, but at any rate, upon careful examination, the surgeon found outside the body, and between the shirt and the body, a piece of liver corresponding in size to the bullet hole and about twelve inches in length. The man got well. The case was reported by a physician in this city, who vouched for the intelligence and integrity of the party who reported it.

Dr. Bryson.—I think that it would be as well to place the

drainage tube at the lowest part of the cavity left by the removal of the growth. It is very frequently made to act as a siphon in this way. The reason that I would be in favor of this is on account of some cases that have been reported by Langenbeck, in which he followed this plan after the removal of a large sac from the supra-pubic region. In those cases, where they were removed from children, they were permitted to lie upon their faces, and he had very good results. Of course, Dr. Mudd may have had very good reasons for having the patient lie on the back. I would like to ask the doctor what is there that is impractical in having the patient lie upon the face?

Dr. Mudd.—I think there were good reasons for leaving the patient upon her back. In the first place, it is a very difficult matter to keep a patient quiet for any length of time when lying on the abdomen; and I felt that the important matter in connection with the operation and the recovery of the patient was to have the margins of the liver, that I had sewed together and that had been brought against the abdominal wall, remain perfectly quiet; then again, the drainage tube ran obliquely outward and into the substance of the left lobe of the liver. The inclination of the tube was about 45 degrees. I confess that I should have hesitated to go on with the operation after I discovered the condition of affairs if I had not seen errors in diagnosis such as this where the operation was abandoned, and uniformly with bad results. I don't remember having seen a case in which an incision was made, and it proved impracticable to remove the tumor, where the patient recovered. No matter what the character of the tumor, whether it was a cyst of the kidney, a tumor of the omentum or a tumor connected with an intestinal gland, I have never seen one recover, and I had made up my mind some time since that if I were to meet with a case of this kind I would remove the tumor if at all possible. Emmet says that in the operation for the removal of ovarian tumors the first incision is always an exploratory incision, and it is a statement that is based upon broad observation.

CENTENNIAL MEDICAL SOCIETY OF SOUTHERN
ILLINOIS.

The first semi-annual meeting of the "Centennial Medical Society of Southern Illinois" is always held at Olney, Ill., on the 2nd Wednesday in May; the second semi-annual meeting at some other town in one of the six counties composing it, on the 2nd Wednesday in November.

There was a large attendance at the second semi-annual meeting held at Newton, Ill., Nov. 8th and 9th, Dr. James Picquet, of St. Marie, presiding.

Several papers were read, among which was one by H. J. B. Wright, of Olney, upon "Oculo-Therapeutics." One by J. W. Hoyt, M. D., of Olney, upon the "Nervous Exhaustion of Continued Fever." One by Dr. L. J. Schifferstein, of Effingham, "Some notes taken of some obscure cases of Disease of the Stomach;" also a very interesting one by O. A. Battson, of Olney, upon "Protoplasm; its Tissue Construction and Heterologous Derivatives." [Dr. Hoyt's paper appears on p. 23.]

W. Duff Green, M. D., of Mt. Vernon, Ill., was present to deliver the popular address. During the last day's session he made a statement of his experience in the use of *tinct. ferri. chloridi* in preventing some forms of continued fever, also its use in the prevention of disintegration of lung tissue after fibroid pneumonia, which he considers quite common in this section. (Vid. Feb. COURIER.)

Dr. N. S. Marshall, of Olney, gave the history of an obscure case of carcinoma of the stomach, presenting morbid specimen in which the liver, transverse colon and over one-third of the pyloric end of stomach was involved. All was in one mass; no ulceration; had been no "coffee-ground" vomiting; under observation two years.

The association was pleasantly entertained at a banquet given them by the citizens of Newton, on the evening of the 8th.

N. S. MARSHALL.

Secretary.

Olney, Ill., Nov. 27th, 1882.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION.

A pleasant and profitable meeting of this association was held at Farmington, in November. Besides the president's address, three papers were read, that were well received and thoroughly appreciated by the members. They were entitled: "Child's Marks, or Maternal Impressions," by Dr. W. F. Grinstead, of Charleston (vid. Feb. COURIER); "Report on Prevailing Diseases in Perry County, Mo., for the Past Six Months," by O. W. Cline, M. D., Frohna, Mo.; "Hygiene," by C. W. Farrar, M. D., of Ironton.

Most of the time of the association was taken up by verbal reports of cases and discussions, among the more interesting being a case of jaundice produced by obstruction of the gall-duct by biliary calculi, reported by Dr. I. W. Williams, of Farmington. The doctor presented ten calculi about as large as hazlenuts that were passed by this patient at different times. The patient recovered under the use of bi-carbonate of soda.

Another interesting case was reported by Dr. Henderson, who exhibited specimens of urinary calculi which a patient of his had been passing during past two years. He had collected something over an ounce vial full of these calculi, and the case was still uncured. The patient is a female.

Dr. Parkhurst, of Farmington, brought a patient suffering with some obscure nerve trouble before the association. There was some difference of opinion as regards diagnosis.

We learn from the secretary, Dr. G. W. Vinyard, that eight good and substantial members were added to the association, viz., Drs. Tolman, Williams, Horn, McCormack, Farrar, Porter, Renfroe and Barker.

The next annual meeting of this society will be held at Fredericktown, commencing May 1st, 1883, at 7 P. M. At that meeting there will be an election of officers. The present officers of the association are: President, R. T. Henderson, Shawneetown, Mo.; vice-president, W. F. Grinstead, Charleston, Mo.; recording secretary, G. W. Vinyard, Longtown, Mo.; corresponding secretary, A. A. Bondurant, Charleston, Mo.; Treasurer, J. L. Haw, DeLassus, Mo.

The regular meetings of this association are held on the first Tuesdays of May and November, at such place as may have been appointed at the preceding meeting.

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No. 2.

ORIGINAL ARTICLES.

SEXUAL, URINARY AND URETHRAL HYGIENE.¹

BY JNO. P. BRYSON, M. D., ST. LOUIS, *Lecturer on Diseases of the Genito-Urinary Organs, St. Louis Medical College.*

BEFORE commencing the study of the diseases of the organs of urine and generation, it is necessary to devote some time to a consideration of the matter of sexual or, as it is sometimes called, urinary or urethral hygiene; than which, when intelligently applied, there is no therapeutic measure of greater power. Many of the disorders of these organs—especially those functional disturbances which give some patients so much concern and are the cause of so much misery—can be cured by an intelligent application of these well ascertained facts and principles, while they are of material assistance in the treatment of the gravest surgical disorders.

Before puberty, in the male, the urethra is only a urinary duct; hence its hygiene does not involve the

¹ Extracted from a forthcoming work on the diseases of the genito-urinary organs, to be published by Jas. H. Chambers & Co.

sexual problem. This holds good during the whole life of the eunuch and anorchic. In the female, the canal is a urethra only, and is never a sexual duct, being separated from the reproductive organs altogether in a physiological sense. In these cases, then, the hygiene of the organs is urinary or urethral, and consists in measures directed towards keeping the urine in a healthy, normal condition. These measures are :

1st—Those that tend to keep the urine up to the healthy standard ; 'free of albumen, pus, blood, sharp irritating crystals, bile pigment, and, especially, the products of faulty digestion. In order to accomplish this, the general hygiene of the body, the skin, muscles, stomach, liver and respiratory organs must be attended to. In the gouty, the diet must be rigidly supervised ; but in all cases, where there is disease of the urinary passages, it is necessary to look carefully to the blood-making organs, in order to eliminate the products of faulty digestion ; for these once in the blood must leave the body by way of the kidneys, which are the great depurating organs of that fluid. In this connection may be mentioned the fact that certain food-substances are objectionable by reason of their irritating qualities, partly on the gastric membrane, causing a faulty digestion, and partly because, in their passage along the urinary channels, they are found by experience to be distinctly irritating. These are, *all* the alcoholic fluids, new ale, and other fermented drinks, the sweet sparkling wines (champagne, etc.) and malt liquors being especially objectionable ; rich, greasy and sweet foods (pastry, confections, etc.) ; strong tea, coffee and the excessive use of tobacco and the spices, pepper, and especially mustard. Among the vegetables, asparagus deserves especial mention, since experience has demonstrated that the asparagin is distinctly irritating to the urinary passages.

2nd—The urine should be kept, as near as possible, to a normal specific gravity. Observation demonstrates that

urine of low density is more objectionable to the bladder than that of a normal or even very high standard. Pure water is irritating, and the more nearly a urine approaches to it the less do bladder and ureters tolerate it. There is no reason for saying that a high density is, *per se*, an irritating cause, unless the greater weight is due to the presence of substances in themselves objectionable to the membranes. Of all substances, urea is the least objectionable. Pure, undecomposed urine is not irritating to any of the tissues of the body.

The reaction of normal urine is either alkaline or faintly acid, the latter being due to the presence of acid phosphate.

The arrival of the male at the age of puberty adds another element—the sexual—to the consideration; an element that not only complicates the study of the hygiene of these organs, but renders the application of hygienic laws to the treatment of their diseases extremely difficult.

At the beginning of sexual life (the period of puberty), the reproductive organs of the male are in a high state of excitement. They are undergoing a metamorphosis from a torpid, rudimentary state to an active, potent and complete condition. This change does not take place in a day or a week, but requires many months of time; and not only must the organs develop and alter to a marked degree, but the whole body, from the bony frame to the delicate nervous centers and vascular systems, must adjust itself to the new order of things. Indeed, it is at this period of life that one of the most remarkable changes takes place to which the body is liable. It can hardly be said that one single tissue or organ of the whole individual remains the same after this metamorphosis has been completed. It is at this critical period of life that the facts of sexual hygiene are of paramount importance. A new sense has been gained, a new appetite and power for pleasure has been attained without a corresponding mental and moral ability to control the actions and impulses. It is not to be wondered at, then, that those individuals, especially of a sen-

sitive and weak nervous organization, are frequently led astray, both in the ideas they form concerning the needs and relations of the sexual organs, as well as dangers that lie in the path of over-exercise of structures not fully developed and consolidated. It is worthy of note, in this connection, that the ability to bring about the sexual orgasm, with its attendant voluptuous sensations, precedes the power to secrete and ejaculate fully developed and fertile sperm-cells; for it is in this fact more, perhaps, than in any other that the chief dangers, especially to the young and growing nervous system, consist.

The three errors most apt to fasten themselves on the mind at this period, and that at the same time do the most harm, are:

1st—The supposition that the sexual organs, like the muscles, glands, brain, etc., require frequent and regular exercise of their functions in order that they may be maintained in a healthy and normal condition.

2nd—The highly erroneous as well as injurious supposition that it is the fluid (semen or sperm) emitted, and not the nervous shock or perturbation, that accompanies or constitutes the orgasm, that does or may do the injury.

3rd—The equally injurious and (morally) demoralizing notion that fornication is equal to and essentially the same as the sexual relations of the married state, and that it allays and quiets sexual excitement and is a proper exercise of the sexual powers.

In regard to the first-named error, it is sufficient to say that the generative organs are peculiar in this respect, that they may remain quiescent for nearly or quite a lifetime and still be fully able to perform their natural functions on proper stimulation. In the otherwise healthy body, so long as the testes remain sound and in proper nervous and vascular connection with the body, there need be no fear that the sexual powers will undergo degeneration. Neither the penis, urethra, seminal vesicles, prostate gland or ejaculatory muscles have ever been known to degenerate

for want of exercise. It goes almost without the saying, that these organs, in common with all others, require rest rather than exercise, during the developmental period; but there are even greater grounds for the assertion, in this instance, for the reason that the exercise of these functions re-acts injuriously on the general system, and especially on the nerve-centres, at a time when the development, growth and consolidation of the tissues is not yet complete.

Turning to the testes, the glands on the growth, development and soundness of which depend, not only the power of the individual to reproduce his kind, but likewise both sexual desire and copulative ability, we find that they may remain in a totally quiescent state, so far as their secretory function is concerned, for an indefinite period without any impairment whatever.¹ Instances where one or both glands have had their ducts completely closed so as to render secretion mechanically impossible for a number of years, the gland remaining meanwhile in a perfect condition

¹ What is here meant is that the testes do not degenerate so as to be incapable of regeneration to full functional capacity and anatomical completeness. That they do grow less in size and more fibrous does not admit of doubt. In the lower animals, this change is to be noted in a remarkable degree during the period that intervenes between the rutting seasons; and in some of the rodents they not only undergo this partial physiological atrophy, but they also return along the inguinal canals to the abdomen whence they came. This is not by any means, however, to be considered pathological atrophy, since only the necessary impetus is requisite to their full development. Neither can it be said that repetition of this retrograde change is in any way injurious to the organs.

A somewhat similar condition is to be observed in man. "In persons who marry, after many years of abstinence from sexual intercourse, the testicles undergo a certain degree of enlargement. These glands naturally remain somewhat small, when not called upon to exercise their functions; but whilst they are in a condition for secretion, and can be further developed if excited, this state cannot properly be regarded as morbid atrophy." Curling; Phil., 1878. P. 75.

The same author remarks, on the same page, that he is not aware that there is sufficient authority for the common assertion that these glands waste in persons who adhere strictly to their monastic vows. The physiological

both structurally and functionally, are now too numerous and too well attested to permit of other interpretation. In these cases the glands could not secrete, yet they did not degenerate, atrophy nor disappear by reason of not having functional exercise.

Cases of both atrophy and degeneration of the testes and debility of the erectile and copulative organs, due to masturbation and sexual excesses, are common enough in the practice of the surgeon; but the same results from inaction or chastity are unknown, except to the quack and charlatan.

So much can be said positively and with a sound basis of fact and observation, without denying that all men who are healthy and properly developed have sexual desires and longings, the gratification of which, within proper limits and conditions, conduces to the health and well-being both of the individual and of the reproductive organs. It is the object here to show the peculiar characteristics of the reproductive organs—structures set aside for a particular purpose, having special qualities, and which are not concerned either in the maintenance of the health or the life of the individual, and hence not subject

atrophy alluded to above, may be the source of this very common error.

The other evidences of virility—viz: the hair on the pubes, beard, voice, and condition of the erectile organs, do not show any alteration during this state of quiescence.

It is a well known fact that complete enucleation of both testes is requisite to the extinction of the copulative power and sexual desire. Not only is this true, but complete sexual evolution will take place at the proper time, even though both organs have been partially destroyed by disease, as will be shown by a case of strumous disease of both epididymes related in the following pages.

Evidence worthy of scientific consideration is extremely difficult of attainment in this line of research, as can easily be seen. Much that has been written and that has, by age and custom, passed for authority on these questions, does not rise to the level of scientific evidence, and is unworthy of consideration. Recent advances in the physiology of these organs have done more to clear up disputed questions and to point the way for research than all the quasi-scientific writings of the older authors, who were rather book-makers than accurate observers.

to the general laws applying to tissues and organs that are so concerned. Certainly, the organs and tissues of the body concerned in the maintenance of the health, growth, development and life of that body do require due (almost constant) functional exercise for their welfare; and functional quiescence means, within certain limits, structural degeneration, atrophy, decay. It is equally true that the organs set aside for reproductive purposes do *not* decay when they are subjected to a period of functional quiescence, even if it be a long period; and this difference does not appear to be so great when we consider the difference in the purposes for which they have their being. The error which we here combat is, doubtless, quite as much due to the lack of consideration for this difference in object as well as structure, as it is due to certain ill-advised and hastily generalized opinions expressed by certain writers whose brilliancy far surpassed their powers of scientific observation.

The testes, and the purely copulative organs as distinguished from those of reproduction, remain for a considerable period of the individual's life in a rudimentary condition. The erectile tissues are small, and the testes both small and granular, instead of being composed of seminiferous tubules. At the period of puberty, and not till then, they develop fully and become capable of secreting the vivifying vibratile cells, the formation of which is one of their true functions. This state once reached, it is a fact that they will remain perfectly normal, potent, and capable of secreting the zoosperms for nearly the balance of the individual's life; and frequent (or even infrequent) copulation is not requisite to the maintenance of this healthy state; neither is it necessary to the maintenance of the size, functions or well-being of the erectile or copulative organs.

Patients are greatly concerned at the appearance of a drop or two of clear, ropy fluid at the urethral meatus in the morning after an erection produced by an over-filled bladder, or after the extrusion of a costive stool. They

imagine they are losing their strength, wasting their semen, etc. If they have an emission that is unusually large in quantity they imagine that they have lost a corresponding amount of strength. These fallacies are hardly to be wondered at when they tell that some one of pre-eminent ability and standing has declared that "one drop of semen is equal to one ounce of blood." These errors have their foundation in the belief that it is the semen ejaculated, and not the nervous shock of the orgasm that brings about the debility that results from sexual abuse or masturbation. It is not difficult to show that this idea has lodgment in the professional mind; yet there is no reason for thinking that it requires more blood to form a drop of semen than to form an equal quantity of mucus from the nose or throat. Not only is the fluid at the urethral meatus after a stool not semen, but even if it were, it could not be shown that it was specially debilitating on that account.

Observation clearly shows that it is the nervous phenomena, and not the secretory activity, of the copulative act, that, when excessive, brings about depression, debility (especially of the nerve-centers) and disease, or exaggerates the latter when present. In those cases where the debilitating results of excessive venery or masturbation are most apparent, there is no seminal discharge. Boys who retard growth and debilitate their nervous systems by masturbating have no power to secrete seminal fluid before puberty, and it is at this period of life that the bad effect of this vile practice is most perceptible. Women have no semen to lose, yet are equally debilitated and injured by these excesses. It is a well known fact that frequent emission results in a complete absence of the sperm-cells from the ejaculated fluid, but the ill effects of excess continue and correspond to the frequency of the coitus or orgasm. These and other facts that might be mentioned are quite sufficient to refute the belief, so generally prevalent, that it is the semen ejaculated and not the nervous phenomena constituting the orgasm, that are responsible for the bad effects

of excessive functional activity, and excitement of the generative organs.

These nervous phenomena are, on too frequent repetition in any constitution, distinctly injurious. The perturbation known as the orgasm of venereal excitement is, in fact, a great shock, and affects profoundly the sexual center in the lower enlargement of the spinal cord, the entire gray matter of the cord, including the respiratory, secretory and circulatory centers, the brain, heart, vascular system, blood-pressure and a large part of the motor nervous system and muscles—especially (Eckhard) those of extension. Such a general shock cannot, in the nature of organized matter, be frequently repeated without injury ; and in the case of persons with weak nervous systems, respiratory or circulatory organs, and more distinctly in the young, undeveloped and growing, who notoriously bear shock as well as blood-losses badly, the injury, in many cases, must be very great. Hence, while it is not the seminal loss, but the nervous orgasm that does the harm, such harm may come to any one from the too frequent performance of the sexual act ; and it is clearly injurious to the young, the growing, or those who have some congenital or acquired disease or defect of the organs most clearly and distinctly affected by the disturbance.

In all the diseases of the genital, and most of those of the urinary organs, all excitement of the sexual organs is clearly injurious, and distinctly retards healing, if it does not actually aggravate disease.

The sexual evolution, known as the arrival at full puberty, being completed, the individual has more or less strong sexual longings and desires, and it is necessary that some natural provision be made for the satisfying of those desires which are as much, now, a part of the person's life as other appetites are. But, as has been shown, the repeated and regular gratification of this appetite is not requisite either to the health and well-being of the body or that of the glands and tissues of the organs of

reproduction and copulation. There can be no question of the fact that marriage is the only state that permits of a proper and physiological exercise of the genital organs after this state of puberty has been completely attained. It is a distinct and clear physiological error to suppose that fornication is, in the slightest degree, a substitute for the sexual relations of the married state. Aside from the fact that it is demoralizing and degrading; aside from the fact that it is morally wrong; leaving out of the question both the danger of contracting disease and its degrading influence on the morale of the individual, and looking at it in a purely sanitary, scientific or worldly light, it not only fails to accomplish the desired objects, but it is distinctly injurious. Whether it attains the object of the Epicurean, who seeks the greatest pleasure attainable from all the senses, may be a matter of doubt; but certain it is that it is injurious in all the cases that come under the observation of the surgeon where the urinary and reproductive organs are at fault. It may be said, with equal truth, reason and emphasis, that just as the surgeon does not often have to treat diseases that are clearly traceable to chastity as a cause, just so surely does he observe that fornication both brings about disease, lowers the tone of the general system and of the sexual and urinary organs, and retards and obstructs healing.

A very wide range of biological and medical literature might be laid under contribution to substantiate this assertion (and I am not aware of a single well-ascertained fact that contradicts it), but space only permits of a general treatment here, and it remains only to be said that it does not quiet sexual excitability; does not gratify the normal sexual desires (but rather serves to inflame and exaggerate them); is not a test of the sexual powers; is not a substitute for the normal condition of happy marriage, and is in no wise a proper, much less a necessary, exercise of the genital organs. "It is always," say Van Buren and Keyes, "irregular, unnatural, often excessive,

and therefore is harmful and worse than nothing." The oft-quoted words of Sir James Paget are even more certain.

"Many of your patients will ask about sexual intercourse, and some will expect you to prescribe fornication. I would just as soon prescribe theft or lying, * * *

* * * * * If men will practice fornication or uncleanness, it must be of their own choice and on their sole responsibility. We are not to advise that which is morally wrong, even if we have some reason to think the patient's health would be better for the wrong-doing. But in the cases before us, and I can imagine none in which I should think differently, there is not ground enough for so much as raising a question about wrong-doing. Chastity does no harm to mind or body; discipline is excellent; marriage can be safely waited for; and among the many nervous and hypochondriacal patients who have talked to me about fornication, I have never heard one say that he was better or happier for it; several have said they were worse; and many, I know, have been made worse."

Of the next mode of relief, involuntary emission during sleep, sometimes called nature's safety-valve, it is unnecessary to say more than that it is inefficient in this condition. The evidence goes to show that it does not accomplish the desired end.

For the quieting of sexual excitability, and placing the sexual organs in the adult male in a hygienic condition best suited for the maintenance of the healthy state or for getting well when diseased, the married state is absolutely necessary. The truth of this assertion will be quite apparent to any one of ordinary powers of observation whose duty it is to treat the diseases of these organs. It requires but a short while to demonstrate that about all the diseases—both grave and trivial, organic as well as functional—are less frequent in the married than among the unmarried; and that they are easier to deal with in those whose hygienic condition approaches nearer to the normal standard. If we take as an illustration the disease stricture

(organic) of the urethra, we will find that the relative number of these cases that have gleet as a symptom is far less in the married than in the single. In the case of the so called functional disorders, the proportion is even wider and more marked. Many of these disorders that fail to get well under the most careful, intelligent and prolonged treatment, yield without any medication whatever to the hygienic influences of a happy marriage. It is marriage alone, then, that allows of healthy, natural and unstimulated sexual relations. Here there is, what there cannot otherwise be in the very nature of things, a natural sexual relation.

Marriage, however, in order to accomplish the sexual good here alluded to must be what is called happy marriage, *i. e.*, effected in obedience to the conditions of mutual attachment, that are requisite to make that social condition desirable. To marry simply for sexual intercourse, and without regard to the above named conditions, would be no better than fornication, in a hygienic or physiological sense; and, so far from producing beneficial results, would bring about the most disastrous consequences; such indeed, as will cause the surgeon to be very careful as to the advice he gives in these cases.

But marriage is not always possible under such conditions, and may be even unadvisable for other reasons; and it becomes a question to determine what is best under such circumstances. There are unfortunate cases who deserve the kind and friendly consideration and aid of the physician. He who has only sneers for such patients, is not worthy to treat them, and they are not slow to arrive at this conclusion and seek other aid, as they are certainly justified in doing.

Such persons after being told that they may have no fear in putting their genital organs at rest as nearly as they can; that there will not follow any "degeneration for want of exercise;" that fornication is neither right, beneficial, nor a test of the sexual powers, and otherwise instructed

in the truths and principles of sexual hygiene, should be urged to adopt the following course :

1st. Pursue a course of absolute continence.

2nd. Prevent the mind from being occupied with impure thoughts of all kinds and shades by the control of the will.

3rd. Avoid the sources of such thoughts, remembering that they may arise in the mind, or come through the eye or ear.

4th. Keep away from all sources of temptation and places where it is known to lurk.

5th. Seek the society of pure people who have higher aims than the cultivation and gratification of their sexual desires ; and, as one of the most efficient means, occupy the mind with some business, study or occupation ; avoid idleness and introspection.

6th. As subsidiary aids, the diet and time for meals should be considered. The heavy meal of the day should be taken at noon, and the evening one should be light, no food or drink being taken at night. The patient should be made to sleep on a hard bed, in a well-ventilated chamber ; to empty the bladder on retiring, and perhaps be awakened during the night to do the same thing ; to sleep on the side, not on the back, with a small pillow between the knees to separate the thighs ; to rise on waking, and never lie abed late in the morning in a half-drowsy condition ; to take gentle, never severe, exercise ; and to avoid tobacco, stimulants and rich food.

In all cases of inflammatory disease of the genito-urinary organs, it is absolutely necessary to interdict sexual intercourse altogether.

Since the sexual act results in a condition of drowsiness and languor pervading the whole body (more noticeable in the male than in the female), it may be necessary to give some caution as to the times when it is to be indulged in. This sometimes is a question of real therapeutic importance. It is not well to indulge in intercourse at a time

when any considerable bodily exercise is to be taken immediately ; after the act the male, at least, should be, for a time, at rest. Disregarding this precaution has resulted in serious disturbance of the genital nervous system.¹

Sexual intercourse should never be indulged in while the body is not yet developed. At this time of life it is absolutely injurious to the growing body, mind and nervous system ; and, while it certainly does not do the harm it and masturbation (which is no better and no worse) are accused of by Lallemand, Acton and, following in their wake and taking them as authority, a horde of quacks and charlatans, it certainly is not beneficial, and is one, perhaps, of a conspiracy of causes that are active in bringing about serious nervous diseases (paralysis, idiocy, impotency and mental incompetency) in those who are hereditarily predisposed to them. There is, however, no proof whatever that sexual excess ever was the sole cause of these disorders ; it being quite evident that it is rather a symptom of these hereditary complaints. So much being said, it is still quite beyond dispute that it is injurious especially to the young and developing body.

¹Curschmann mentions the case of an extremely strongly built young man, an upholsterer, æt. 29. who for many years, while living in the same house with his mistress, had connection with her at least four times a week without the least injury to his health. He then removed to another dwelling at the distance of about a league, continuing to have connection with about the same frequency, but being compelled to walk home soon after the act. After about six months very serious pollutions came on. At first these were only nocturnal, but soon they became diurnal also ; but ceased soon after the patient gave up this mode of life and took tonic treatment.—Ziemssen's *Cyclopedia*, vol. viii., p. 836.

Several similar cases have come under my observation ; notably that of a tailor, who had no trouble when having sexual intercourse at night on retiring ; but attempting the same before rising and going to his work in the morning, brought on very serious pollutions, both nocturnal and diurnal. These got well after a six weeks' separation from his wife and complete abstinence during that time.

NEW METHOD OF PERFORMING THE PRIMARY OPERATION FOR LACERATION OF THE PERINEUM.

BY W. L. BARRET, M. D., *Lecturer on the Diseases of Women at the St. Louis Medical College ; Physician to St. Luke's Hospital.*

[*Read before the Tri-State Medical Society.*]

I DESIRE to invite the attention of the Society to a method of performing the primary operation for laceration of the perineum, and to insist on the vital importance of never neglecting to resort to the immediate operation.

The method I propose to describe is one I have practiced several years, with entire satisfaction, and so far as my information extends it is a method peculiar to myself.

I have now operated in a considerable number of cases, of both complete and incomplete laceration. In all of them, without exception, the result was perfect; the perineal body and the vulval outlet being restored to its virginal form.

This result I was rarely, if ever, able to achieve by obeying the rules of the standard authorities. Sometimes the operation failed entirely, often it was only partially successful, and not unfrequently I was convinced it did harm by forming a reservoir that arrested the discharges, and from which they percolated into the depths of the wound, retarding healthy granulation, and causing septic infection. I will not consume time by discussing the frequency of laceration, the direful calamities, immediate and remote, that it entails on its victims, nor the various means that have been suggested to prevent the misfortune. These are familiar and threadbare themes. Let it suffice to say that perineal laceration is more frequent, and that its pathological importance is infinitely greater, than the mass of the profession realize; and, I may add, that no skill can anticipate or prevent it. Anesthetics, the multitudinous and paradoxical

methods of support, and even the much vaunted bilateral incisions, are unavailing.

Moreover, when complete laceration has occurred, no secondary operation can fully restore to the perineum, its lost form and function. At least I have never seen a case of perfect restoration, although I am familiar with the work of the best operators.

Perinea restored by secondary operations are at best but substitutes, and often very indifferent substitutes, for the originals. The operation is always a painful, formidable undertaking, and death is sometimes its sequel. Several deaths from this operation have come to my personal knowledge.

There can be no doubt that the raw, unapproximated surfaces of a recent rent form a more favorable site for purulent absorption than if its edges are carefully and accurately approximated by sutures. I have rarely seen cases of neglected laceration escape some degree of septic infection, and, per contra, I have observed that the careful and prompt closure of these wounds was a noticeable protection against sepsis and puerperal inflammatory troubles, and that it contributed in an unmistakable manner to the prompt and perfect convalescence of the patient.

The primary or immediate operation is thus described by standard authorities :

“As soon as the placenta is expelled and the uterus remains firmly contracted, a nurse or an assistant being instructed to maintain pressure on the organ to prevent any risk of post-partum hemorrhage, the external parts are carefully sponged, and if the sanguineous discharge be at all free, a cup-shaped sponge may be passed into the vagina.”

“Placing the patient in the dorsal position, with the knees drawn up and the hips close to the edge of the bed, opposite a window so as to secure a good light, if daylight, or, if it be night, a lamp placed on a table behind, the operator, seated on a low chair or stool, first approximates the torn surfaces to see where to insert the sutures.”

"Any ragged surface may be snipped off, and if the surface bleed freely, the part should be sponged with cold water to check the bleeding."

"With a curved, long-handled perineum needle, or a sharply curved needle held in a needle forceps, and armed with a stout silver wire, the operator then inserts the point about half an inch or so from the margin, a little below the lower angle or fork of the wound, carrying the needle in the recto-vaginal septum, so that the wire remains buried within this, and bringing out the point on a corresponding level with the insertion."

"Three or more sutures are passed, according to the extent of the laceration, each one, except the lower one or two, being made to emerge on the mucous membrane of the vagina, very near the edge of the raw surface."

"Having passed as many as requisite, the sponge which was previously passed into the vagina is now withdrawn, the raw surfaces approximated and the sutures twisted, beginning with the lowest one first."

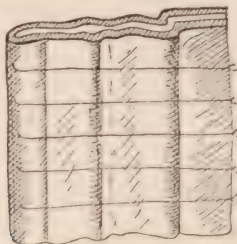
"The ends of the sutures should be left two inches long, twisted together and the ends secured by gutta percha or a piece of India rubber tubing."

"The urine should be drawn with a catheter every six hours, a pad placed between the knees, the limbs bound together and the patient directed to lie on her side."

This description is taken from the latest gynecological work published, that of Arthur W. Edis, issued in 1882. It is in all essential particulars similar to that given in all other works, from the time of I. Baker Brown, down to the present date.

The principle involved in this method of operating is wrong and the practice has been a failure. It is not possible to pass deep sutures from the cutaneous surface through the recto-vaginal septum, in such manner as to approximate the lacerated surface accurately and at the same time preserve the natural shape of the perineum. When sutures are passed in this manner the perineum is necessarily

shortened, and the tissues puckered by the tension of the sutures, the tension being from before backwards.



The above diagram is designed to show the puckering produced in the perineum by the tension of deep sutures, as they are ordinarily used. The parallel lines are the sutures, and show that the tension is from before backwards. If drawn too tight, as they usually are, puckering must be caused. If just exactly the right tension to effect apposition is secured, the subsequent shrinkage that occurs in the process of involution necessarily renders the sutures too lax, and permits the wound to gap.

The tissues are held together in an abnormal position and by main force, consequently when the natural physiological changes take place in the tissues themselves, and contraction and involution of the perineum is set up, the lochia and urine seap into the wound, now relaxed and gaping open, and prevent union.

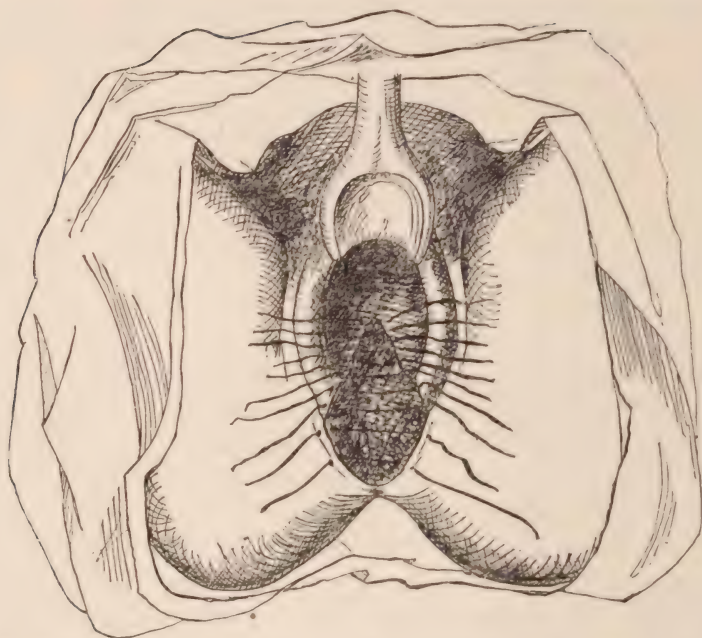
The operation has failed and failed again, until the propriety even of its performance has been denied by the highest authorities. Popular professional judgment has overwhelmingly condemned it, the vast majority of physicians preferring to tie the legs together and trust to nature, rather than to the needle and the suture.

The advocates of the operation seek to palliate the force of repeated failures, by the excuse that the operation is often performed by inexperienced operators, that it is done in the night without proper instruments or assistance, and in the midst of anxious friends, with the dread of post-partum hemorrhage ever present in the mind of the operator, and last but by no means least that the lochial discharge and the urine get into the wound and prevent union.

I think I may safely affirm that the results of no surgeon in this operation, howsoever skillful and experienced he may be, have been entirely satisfactory to himself. This disappointment is not explained by the inexperience, the haste, the fear and the defective instruments of the operator, nor is it because puerperal women urinate and have post-partum discharges. Failure comes simply because the laceration is not closed in the proper direction, and with sufficient accuracy to protect the wound from contact with the discharges; nor can this protection be effected in the manner in which it has hitherto been sought to do it. The fault is in the operation, not in the operator. I believe that if the operation be performed in the manner I shall suggest, failure in the hands of any intelligent physician will be as rare as success has heretofore been in the hands of the best operators.

The plan I have pursued is to place the patient in the usual position on the back, with the legs flexed on the abdomen. A satisfactory light is indispensable, and if an artificial light is employed, a reflector will be of signal service.

The parts are sponged off, and a sponge inserted into the vagina to prevent the uterine hemorrhage from obstructing the view. The vaginal sponge having been introduced, a Sims' speculum is inserted into the anterior commissure of the vulva. This exposes the posterior surface of the vagina to the view of the operator, and he can plainly see the whole extent of the rent. Then with a very fine, short, straight needle with a trocar point, armed with very fine silk, and held with a needle forceps, the operator begins at the superior or vaginal extremity of the rent, and stitches the mucous membrane together, from above downwards. The sutures are simple interrupted sutures, cut off short on the vaginal surface and left to ulcerate out. Five or six sutures are used to the inch. The needle is entered and brought out only a line or two from the torn edges, so that the suture embraces very little tissue.



The above cut shows the patient, and speculum in position, and indicates the method of introducing the sutures. The highest suture, viz., that at the superior extremity of the rent, is inserted first, and the lowest last. It also conveys an idea of the amount of tissue embraced by each suture.

No matter how serpentine and ragged the rent may be, it is accurately followed with the needle from its commencement on the vaginal surface to the edge of the fourchette. No trimming of serrated or irregular edges should be resorted to; but, on the contrary, every tongue of tissue should be fitted into and stitched down to its proper place so accurately that the mucous surface cannot gap and discharges cannot enter. The point on which the success of the operation turns, and the only point worthy of consideration in the proceeding, is the exact approximation of the edges of the mucous surface. It is not necessary either to effect apposition or to maintain apposition of the lacerated parts that the sutures should be strong, or that they should embrace much tissue in their grasp.

The perineum, normally only $1\frac{1}{4}$ to $1\frac{1}{2}$ inches in length, is during labor stretched to four or five inches in length. Immediately after labor the parts are flaccid and elongated; and if the torn surfaces are placed in apposition, in the same relationship that they occupied before the injury, they fit together as naturally and as accurately as an oyster fits into its shell.

There will be no tension on the sutures, and no disposition to a separation of the lacerated surfaces; but, on the contrary, the contraction that takes place in the perineal tissues, as involution progresses and the parts resume their ante-partum condition, tends to draw the severed surfaces into closer apposition, and thus contributes to the success of the operation.

If the parts have been drawn by deep perineal sutures into artificial relationship, the normal change referred to, disturbs the apposition that is forced and unnatural, and opens sinuses, into which irritating discharges percolate and prevent union.

When the mucous membrane has been closed in the manner described, the tear in the perineum will also be closed, and I believe that the passage of sutures through the cutaneous surface might be entirely dispensed with; but it has been my habit to introduce one or two superficial stitches, because it approximates the parts more perfectly and insures a neater appearance. I do not believe the external sutures are absolutely essential.

I do not bind the limbs together, draw off the urine, nor constipate the bowels, but treat the patient in all respects as if no operation had been performed.

On the fourth or fifth day the external sutures are removed. Those in the vagina are left to ulcerate and come away spontaneously. The operation, performed in this way, is simpler, less painful, more rational, and, I believe, more certain in its results than when the usual method is adopted.

Other advantages are observed in the fact that the line of union is not traversed by foreign bodies in the form of sutures, and that drainage is permitted, if union by first intention should fail.

CHILD'S MARKS.

BY W. F. GRINSTEAD, M. D., CHARLESTON, MO.

[*Read before the S. E. Mo. Med. Association.*]

BY this term I mean to convey the idea ordinarily expressed by the term mother's marks. I prefer this term for the reason that, in my judgment, the mother has little more to do with the etiology of the condition, thus specified, than the father. That certain deformities are stamped upon the fetus in utero is a fact well established, but to my mind it is conclusive that these malformations are dependent upon an error in the law of development, superinduced, not by the mental condition of the gestant mother, but by some obscure influence, for an explanation of which we must look to the teratologist. For quite a number of child's marks this dealer in monstrosities can give a logical explanation; yet there are those occasionally confronting us whose developmental force is so deeply hidden that all efforts of the philosopher and scientist to reveal have been futile.

In taking up this subject and attempting to consider its etiological aspect, I hope you will not listen for me to exclaim Eureka! for I am not in possession of any new light upon the subject, and do not wish to disappoint you; but if I can write one sentence that will tend to show that the opinion held by the populace, as well as a respectable minority of the profession, is a phantom, a mental hallucination, I shall lay down the quill with a sense of satisfaction.

It may be well at the outset to notice in what the popular explanation, or rather belief, of these monstrous phenomena consists, in order that we may get properly at our subject.

It seems to have been a popular tradition from time immemorial, that if a child was born with a red spot upon any part of its body, its mother while carrying it had longed for a strawberry and couldn't get it; or she had been shocked by the sight of some bleeding animal. Deformities presenting other characters were accounted for in a similar manner. As a fact, it was rarely questioned. The mother set herself at once to remember just when and where she had been mentally impressed by such a sight, and by the aid of some of her prophetic matrons she was generally reminded of the appearance she had beheld, or the insatiable longing she had endured. Not only has this idea prevailed among the laity, but the medical profession itself has been and is to-day tinctured, to a considerable degree, by this strange psychical doctrine.

The question might be asked, where did this doctrine originate? This is a question which I suppose no one can answer positively. The most ancient notice which I have ever seen of it is that which we read in the Book of Genesis, in which we are taught that Jacob of old increased the percentage of spotted cattle in his father-in-law's herd by placing spotted sticks in their watering troughs. Well, if any member of this society will demonstrate to me, at this age of the world, that spotted cattle can be grown by this method, I will admit the possibility of producing child's marks by the same *modus operandi*. I think one just as reasonable and just as probable as the other. I must say in this connection that the theory which finds the origin of child's marks in mental impressions reminds me of the doctrine of the faith cure for disease, or the practice of foretelling coming events. Persons who have been for some time afflicted, and who have been under the

care and treatment of scientific men until the force of the malady has been broken, often seek the conjurings of the faith doctor. Of course they make an excellent recovery, and the credit is all accorded to the conjuror, when, as a matter of fact, the hypocritic impostor exercised no salutary influence upon them whatever.

I suppose there is not a member of this society present who has not met in his rounds many persons who confess their confidence in the faith doctor. Likewise we find them reverencing the mysterious power of the fortune-teller, who has no more power than they possess themselves to lift the veil from the future.

Now and then something occurs which was predicted, but it was either based upon what occurred in the past or was an accidental coincidence. Besides the examples which we meet to-day, of persons who confide in the art of necromancy, even Saul with all his force of character, as history tell us, sought to throw light upon the misty future by consulting one of these pretenders to a partnership with the Ruler of the Universe.

What have these things to do with maternal impressions? Simply this: they are founded upon the same sort of a basis. People accept these doctrines, not because they can be explained physiologically, philosophically or scientifically, but because their neighbors have told them of instances within their personal knowledge or acquaintance in which disease was positively cured by the faith doctor, so that there could be no doubt about it. Or they have known a fortune teller to predict a future event for months or even years before its occurrence.

Now this is about the character of evidence upon which the doctrine is based. No doubt there are a few under the sound of my voice who believe in this mental doctrine, and I am sure that several are present who are sceptical upon the subject. Sceptics say that there are some cases on record which seem so clear, and are so well authenticated, that they do not know what to think about it;

therefore they have little or nothing to say upon the subject. There will be an attempt made on this occasion, by some of our most worthy members, to defend the old mother's mark tradition, and I would like to suggest to you in advance the point they will endeavor to present; in fact, it is about the only point that can be presented in its favor. It consists of an accumulation and piling up of cases which have been reported upon what they call good authority. They will try to heap up such a multitudinous aggregation of these cases that we cannot see through them nor around them.

Let us notice for a moment the kind of evidence with which these reports are usually accompanied.

In the first place they ordinarily come to us second or third handed. For example: a mother who understands to her entire and undoubted satisfaction just how child's marks are produced, has a babe born to her which has a strange deformity upon some part of its person. She at once knows that at some time during her pregnancy she has been impressed by some object which the mark upon the child resembles. The only strange thing about it to her is that she has been so stupid as to forget just when, where and what it was.

Finally, perhaps by the suggestions of some of her companions who are converts to the same doctrine, she is enabled to recall the very object that did the work. The observations of the average female during the ins and outs of a period of nine months are so multitudinous and varied, and their psychical economy is so sensitive and susceptible to impression, as to render it probable that something may have been seen to resemble most any kind of a mark that may present upon her babe. She takes the first opportunity to inform her family physician, who is also a convert to the doctrine, of the time, place, etc., and he takes great pleasure in adding it to his list of similar cases. Thence comes most of our evidence pertaining to the etiology of child's marks.

No doubt there are exceptional cases occurring now and then when an impression has actually been made upon the enceinte woman; and a mark has appeared upon her child at birth, which reminded her of the shock she had sustained; but these are simply coincidences.

Just think for a moment what an exceedingly small per centum of the children that are annually born present such deformities, coupled with a well authenticated history of shock, during gestation, by objects resembling the mark. In our own state, for example, I think it would be a fair estimate to say that there are fifty thousand births annually. If this approximates truth, then we have about forty thousand pregnant women at some stage of gestation in our state every day. Now from all these women I do not believe you can find ten—no, not five—reliable cases of child's marks, where the mother has been shocked, and expected before parturition that her child when born would have the kind of mark which it afterwards did have.

The fact is, mothers are constantly being disappointed by looking for a certain mark after a violent fright during pregnancy, and not being able to find it when the child is born. I will leave it to the members of this society to decide if it seems reasonable that forty thousand pregnant women, with their effeminate temperaments, can move around among us in our own state, to say nothing of the millions on the continent which give us similar figures, and so small a number of well-established cases of child's marks be presented to us annually, if it be true that impressions upon the mother's mind causes them. They are continually seeing all kinds of sights, and, in the cities especially, numerous and varied deformities.

Now let us turn for a moment to the physiological aspect of our subject. The impression is made first upon the optic nerve, thence is conveyed to the central nervous batteries. From here a shock is conveyed to the entire nervous system. To reach the womb it must pass down the spinal cord, leaving this structure by the sacral nerves.

It passes, not directly to the uterus, but to the inferior hypogastric plexus of the sympathetic system, thence to the uterus. Through the latter system the womb may be excited to violent action, and an abortion or miscarriage may ensue; but in my opinion right here the whole thing ends. I should like to be informed of the medium through which the nervous shock can reach the fetus. There is only one connection between it and the mother, and that is the umbilical cord. If this structure has any nerves permeating its tissue I have never found a description of them.

Were it even possible for the shock to be communicated to the nervous system of the fetus, then another difficult problem would be presented for solution, viz., how the shocks are directed to one particular part of the fetus. You will remember that in most of these cases a certain part of the organism of the child is marked, corresponding to the part of the object beheld when the shock was effected. For example: I remember a case that was reported to the St. Louis Medical Society some three years ago, in which a lady, early in her pregnancy, was very much shocked by an old beggar, having a face shaped like a frog. When the child was born its face looked exactly like a bull frog.

Now this was a strange coincidence, but I am satisfied that this woman would have been delivered at the same time, and her babe would have presented the same physical characters, if she had never seen this beggar. It is conclusive to my mind that these phenomena are purely physical.

A SUBSIDY TO PASTEUR.—*Les Mondes* states that the French minister of agriculture has lately placed at the disposal of M. Pasteur a new sum of 50,000 francs (\$10,000), in order to continue his admirable investigations upon the contagious diseases of animals. The government had already granted 90,000 francs to the illustrious savant, for the same object, in 1880 and 1881.

CASES FROM PRACTICE.

MISSOURI MEDICAL COLLEGE DISPENSARY.

[CLINIC OF DR. J. STEER.—REPORTED BY F. C. AMEISS, M. D., ASSISTANT.]

DIABETES MELLITUS.

Wm. D., æt. 22 years, born in N. Y., single, occupation painter, family history good; never had painter's colic nor any trouble whatsoever referable to his occupation.

Has been coming to clinic since June, '78. At that time he complained of headache and the passage of a large amount of urine. He would get up during the night every twenty minutes to urinate, and every time would also take a drink of water. He states that he drank more than a bucket of water per night for many a night. He passed at the same time, *i. e.*, from 9 P. M. to 7 A. M., nine quarts of urine, and a still larger quantity during the day.

Was very restless at night; would wander about all night and on lying down would "doze away" for only a few minutes at a time.

Had pain in precordial region, in small of back, and in groins. Also complained of occasional choking spells.

Two years ago patient had a "crop" of boils on his neck; when one would heal another one would appear, this lasting for about half a year. Later, he had an abscess on right index finger, which finally healed, after it had resisted treatment for several months.

Several times, especially in the first two years, he complained of a severe itching sensation at the meatus urinarius.

Patient's vision is fair at present, but was very poor two years ago, at which time he could not read common print nor recognize a person three feet distant. At same time, his legs and feet were swelled enormously, pitting on pressure; but this did not persist for any length of time. His mother says

that patient's mind is not as clear as it was prior to the disease.

In first year of the disease appetite was very good, "too good," as patient states; it was fair in second year, but it failed in last two years. During this time he was troubled occasionally with digestive disorders, as belching, pyrosis, diarrhea, etc. The tongue has a jet black patch in center posteriorly. Never could detect the peculiar odor of the breath, which is said to be characteristic of diabetes. Temperature in axilla, $96\frac{1}{2}^{\circ}$ F.; but in mouth, $98\frac{1}{2}^{\circ}$.

At present, patient passes but four or five quarts of urine in twenty-four hours, the amount having gradually diminished in the last two years. He urinates only twice at night, and, at times, not at all. Sleeps well at night. Has been gradually emaciating since beginning of the disease, his weight at present being ninety-three pounds, while it was one hundred and thirty-eight when in health.

The urine is clear, of a slightly yellowish tint, and acid in reaction. On examination, it was found to contain sugar. Highest specific gravity, 1045; lowest, 1030; at present time, 1038. The urine responded to the sugar test at every examination made during the four years. Treatment: abstinence from all saccharine and starchy substances. (A total absence of sugar in food cannot, of course, be attained, as a slight amount of sugar is found in almost every eatable substance.) He was given a list of foods which he was permitted to eat, and another list containing substances he should not eat. But he did not follow the advice strictly, for he said: "I must have bread; I cannot live without it." At one time he did "live up" to his list for six weeks, but he grew weaker and weaker, and he had to resort to wheat bread again, after which time he grew stronger, as he says. Gluten bread had been substituted for wheat bread on his list, but it would not agree with patient's stomach and, therefore, had to be withdrawn.

Medical treatment: He was given potassium bromide, muriated tinct. of iron, opium, ergot, cod liver oil, alkalies, lactic acid, and codeia. The last two remedies seem to have had the most beneficial action.

Although the quantity of urine is diminished to one-fourth of what it had been, still the prognosis is grave, as the patient's general condition is in so low a state. The amount of urine,

in fact, generally decreases at the final termination of the disease, and, considering the great emaciation of patient, the above prognosis will be justified.

The remarkable feature of this case is the enormous quantity of urine excreted in twenty-four hours. But few cases are reported that equal this quantity. Bartholow, in his *Practice*, mentions a case reported by Bence Jones, in which seven gallons were passed in twenty-four hours.

A CASE OF MALARIAL ECLAMPSIA AND INSANITY WITH TUBERCULOSIS.

[By J. TRUEMAN DAVIS, M. D., GRAHAM, INDIANA.]

August 22, 1880, I was called at night to see Charles M., æt. 21 years, single, a farmer, tall and slender. I was informed by the messenger, his brother, that he had phthisis, and that he had been sick for several months. He had been under the treatment of Dr. W. T. Taylor, an excellent physician, and a friend of the writer; but I had no knowledge of his case until I was called to visit him.

I found him in bed. While I was examining him, his mother, in removing the lamp from the mantel, put it out. In an instant the patient sprang out of bed and seized me around the neck with both arms, holding me tightly. I, of course, was surprised at such conduct, but not alarmed. I had received no intimation in regard to his mental condition. After the light was restored and the patient placed in bed, I began to make inquiries as to his previous condition, mentally and physically. I was informed that he had spent over a year in a very malarious part of the state, and had suffered a long time with intermittent and remittent fevers; and that during the winter and early spring preceding, he had been exposed to an unusual amount of wet and cold, and had been down with bronchial and lung troubles; had had a cough all the summer, some fever, poor appetite, constipated bowels, and deficient action of the kidneys. His tongue was coated, indicating biliary derangement; pulse, 90; he was anemic.

I gave him potassii bromidi, grains xxx, every three hours, with instructions to call me before morning if necessary. At three o'clock the next morning I was summoned to see him, and found him in a spasm, feet and hands both cold and clammy, pulse rapid, but very weak. As soon as the spasm had left him and reaction had set up, I gave him calomel, which acted kindly and efficiently, and also gave him cinchonidiæ sulph., grs. v., every two hours, and continued it until full cinchonism was set up.

24th. Rested badly last night; had a chill to-day lasting three hours; spasms very severe: I continued the cinchonidia with brandy; gave chloral at night.

25th. Rested well last night; bowels and kidneys both acting freely; wants to eat a little; continued the cinchonidia every three hours; gave chloral at bed-time, which caused him to sleep until midnight, when he awoke and became very boisterous, requiring several strong men to keep him in bed; gave another dose of chloral, which produced sleep, lasting until daylight.

26th. Succeeded to-day in keeping him quiet long enough to examine his lungs: found tuberculous infiltration in his right lung.

27th and 28th. Patient about the same; continued treatment.

29th. Slept but little last night; has taken medicine regularly; had very severe spasms; is tolerably rational this morning; continued treatment; spasms again in the evening; gave chloral again at night. He said his head hurt him, and that his neck was stiff. Applied a small blister; also gave him potassii bromidi, grs. xx, every three hours, kept the blister open a few days.

30th. No spasms last night; rested tolerably well; tongue is red at the tip and edges, but not much coated; does not cough much, expectorates easily; mind still deranged; pulse, 100; temperature, 101°; breaks out in a profuse sweat after having spasms; does not froth at mouth nor bite his tongue; neither is there blackness of the face; the pupils dilate slightly; the spasm seems to affect the muscles of the neck the most. He knows who is around him, but cannot speak. Treatment continued, with a liberal quantity of apple brandy.

31st. Rested pretty well last night; is more rational this

morning; is sitting up in bed; is eating some; his general condition is better than at any time since I first saw him.

Sept. 1st. Light spasms yesterday evening; gave chloral, which caused him to sleep well all night; is sitting up in bed eating his breakfast; at evening, is very boisterous, and can hardly be kept in bed; tries to tear his clothing; gave him the chloral at night.

Sept. 2nd. Slept well last night; is not so rational as yesterday; in other respects, his condition is about the same.

Sept. 3rd. Slept well last night, with the aid of chloral; has had some operation from his bowels, which looked natural; tongue cleaning off, but has a little fever; appetite improving; no spasms; rational; continue tonic treatment.

Sept. 4th. Slept well last night without medicine; is improving; gave him liq. ferri oxysulphas, gtt. x, and liq. pot. arsenitis, gtt. iv.

Sept. 5th. Slept well again last night without medicine; bowels are moving off rather freely; discharges dark and thin; appetite good; no fever.

Sept. 11th. Bowels still loose; have been giving him bis-muth and pulv. Doveri.

Sept. 16th. Is entirely rational; bowels still rather loose; no fever; does not cough much; appetite pretty good.

Sept. 30th. Has been able to get up and dress himself, and go to the dining-room and eat his meals.

Oct. 8th. Got up and dressed himself, and ate his breakfast, and soon after complained of feeling bad. I was called to him, and on arrival found him dying. He died in ten minutes after I saw him.

The above case was different, in many respects, from any I had ever met before. I had been practicing for several years along the Ohio River bottoms, and had treated large numbers of cases every year of fever of various forms, produced by malaria. Had seen children with spasms, produced evidently by the poison of malaria; but the case referred to was unique; and I confess I was at sea without a compass, in regard to treatment. The only literature I have been able to find illustrating in any way my case is in an article in the *American Medical Weekly*, Oct. 2nd, 1875, by Dr. John McDonald, of Brownsville, Miss. He calls it Malarial Eclampsia or Convulsive Fever. My patient not only had convulsions, but was

suffering with phthisis. He evidently was insane as well. Daillarger has written on insanity as a sequel of malarial fever, in 1843. Greissinger has something to say about it in the transactions of the Sydenham Society. But I have not had access to the above named writers' works.

What the immediate cause of the death of my patient was, I have so far not been able to fully satisfy myself, but think it was tuberculosis, affecting the bowels as well as the lungs.

I am indebted to Drs. Pryor and Taylor, who saw the case with me, for valuable advice.

PROPHYLACTIC AND MODIFYING INFLUENCE OF TINCTURE OF THE CHLORIDE OF IRON IN INFECTIOUS AND CONTAGIOUS DISEASES.¹

[BY W. DUFF GREEN, M. D., MT. VERNON, ILL.]

While discussing a very able paper read by Dr. Hoyt, of Olney, upon The Cause of High Temperature in Fever (vid. Dec., '82, COURIER), I, supporting the germ theory of the infectious and contagious fevers, ventured the assertion that when the fauna and flora of the human system were understood, the class of diseases referred to would be robbed of half their terrors; and that in that class of remedies known as antizymotic, germicide and parasiticide, such as carbolic and salicylic acids, quinine, tinct. ferri chloridi, etc., the physician would find remedies by which such diseases would be entirely prevented, or so modified as to be easily controlled. The latter part of this statement I based upon the following series of observations:

Mrs. S—— was a widow lady with five children, the eldest about twenty and the youngest about eight years old. In 1877, Mrs. S. had a severe attack of typhoid fever. The eldest child, a young lady, acted as constant nurse to the mother. In about

¹ In the report of the meeting of the Centennial Medical Association of Illinois in the January COURIER, it was stated that Dr. W. Duff Green delivered an address. In response to a request that he would send us a condensed statement of his remarks at that time, he has sent us this paper.—ED.

two weeks she was attacked with the same disease in a very mild form, but easily recognizable as typhoid fever, and within ten or twelve days was convalescent, having escaped entirely the usual bronchial complication. This young lady had been taking tinct. ferri chlor., under my direction, for six weeks previous to her attack.

I was so impressed with the apparent relation of the very mild attack to the use of the iron, that I ordered the same remedy given to her sister, a girl of fourteen, in fifteen-drop doses, three times a day. In two or three weeks from that time, she was also attacked by the same fever in a form even more modified than the case of her sister; she also escaping the bronchial complication, and being convalescent in ten days. The three remaining children, to whom the preventive was not given, were severely attacked; suffered from the bronchial complication as well as their mother, and made tardy recoveries.

Mr. H. Mc—, a farmer, living in the same neighborhood as Mrs. S., had in his family six persons within the age-limit of typhoid fever, and, among them, a delicate girl of fifteen. I selected her for the administration of the supposed preventive. The entire number were attacked with typhoid fever, all severe cases, except that of the fifteen-year-old girl to whom I had administered the tinct. ferri chloridi. She was scarcely confined to bed for a day, and by the tenth had complete deferescence and a rapid convalescence.

Mrs. G—, æt. thirty years, had a severe attack of typical typhoid fever. I saw her on the second day. Besides herself, there were in her family her husband, æt. thirty-five years, and three children of proper age for the febrile attack. I directed that the entire number should be put upon the use of tinct. ferri chloridi. Mrs. G. had a severe attack, of prolonged duration, with slow convalescence. The others escaped entirely. This case was traceable to the drinking water, and two neighbors who used water from Mr. G.'s well were attacked.

Rev. Mr. V— was attacked with typical typhoid fever. His family consisted of a wife and one child, æt. two years. The wife, who was about twenty-two, had reached about the sixth month of pregnancy. Knowing the disastrous effect of typhoid fever upon a woman in that condition, I administered twenty drops tinct. ferri chloridi three times a day. She escaped the fever entirely, while the child, to whom I had failed to admin-

ister the drug, had a moderately severe attack. The failure to give the child the benefit of the preventive was owing to the fact that, at that time, I was sceptical as to the liability of a child of two years to be affected by the cause of typhoid fever.

A daughter of Mr. M—, æt. twelve years, was attacked with *scarlet fever*. I saw her for the first time after the eruption was out in full, attended by severe throat affection. I found that several of her schoolmates had called to see her, and were remaining some considerable time with her. I advised that they should all commence immediately the use of *tinct. ferri chloridi*. None of her schoolmates were attacked; nor was her brother, ten years old, who remained in the room with her during her illness.

Mr. T. G—, of this city, has a family of five children, of ages ranging from four to fifteen years. The eldest, a girl, was taking, under my directions, twenty drops *tinct. ferri chloridi* three times a day, for some female disorder. She frequently passed two hours where there were patients with scarlatina. She had sore throat, with very slight eruption, which was regarded of so little consequence that she did not take her bed, nor was I notified of her illness. In a week or ten days, three of the remaining four children were severely attacked with scarlatina, while the fourth, a boy of eight years, was well when I was called to see the others. I administered *tinct. ferri chloridi* to him in five-drop doses, three or four times a day. He had a very light attack within a week or ten days—so light indeed that he was not compelled to take his bed at all. The other three had prolonged attacks, attended with almost all the sequelæ of scarlatina.

These are a few observations out of many that I have made since the first, in 1877. Are the modifications and exemptions and the administration of the remedy mere coincidences, or do they stand in the relation of cause and effect? While I am fully aware of the natural tendency to *post hoc propter hoc* conclusions on the part of medical men, I am still so strongly impressed with the belief that the latter conclusion is correct that I shall continue to administer *tinct. ferri chloridi*, and other like remedies, with full faith in their efficacy in sometimes preventing and always modifying the attacks of the infectious fevers upon those who have been exposed to them.

EDITORIAL.

BACILLUS TUBERCULOSIS.

For some months past the medical world has been in a state of ferment, owing to the announcement that Prof. Koch, of Berlin, had discovered a specific parasitic organism in tubercle and in the sputa of tuberculous patients, and that he had demonstrated by direct experiments upon animals that this low organism is the direct cause of tubercular disease. The peculiar methods of preparation and staining specimens in order to demonstrate this organism, to which Koch has given the name bacillus tuberculosis, have been published, and microscopists all over the world have been making further observations, while clinicians have been studying over the results of their experience to see what new light may be derived from these discoveries.

Of course one necessary inference from the conclusion of Koch is, that tuberculosis is an eminently contagious disease. So rapidly has this view extended among the laity that cases have been known where consumptives have become worse from the mortification of having their friends avoid them, even going so far as not to shake hands with them. Dr. Formad relates an instance in which a young woman suffering from this disease was avoided and, perhaps, neglected by members of her own family, for fear of contagium. In Germany, by imperial order, in military hospitals, phthisical patients are separated from others as carefully as small-pox patients.

The mode of treatment of the disease must be adapted to the view of the etiology of the disease, and on all sides we

hear reports of antiseptic treatment, in one form or another being applied to this disease.

At first, the theory, as advanced by Koch, seemed to carry every one along, and the conclusions were received as fully established and almost unquestioned. But soon it became evident that such a complete change of doctrine could not go unchallenged. Clinical observers urged that the facts studied at the bedside would not warrant the conclusions that Koch's theory of etiology seemed to make inevitable; while other microscopists, with every facility for careful observation and the best possible appliances, are of the opinion that Koch's theory is, as yet, far from being conclusively demonstrated.

C. Theodore Williams, Physician to the Hospital for Consumption, at Brompton, England, read a paper before the Section of Medicine, at the last meeting of the British Medical Association, on "The Contagion of Phthisis."¹ In this he gives a complete report, with reference to the health of resident physicians, nurses, and other employes connected with the hospital during the period of thirty-six years, since its first establishment. He calls attention to the fact that until the erection of the new building, within a few months, the ventilation was very imperfect, and, therefore, there was every opportunity for the contagium, if the disease be contagious, to show its power upon the physicians, nurses, and others who were in constant intimate association with the patients.

He summarizes the results of his study as follows:

1. The evidence of large institutions for the treatment of consumption, such as the Brompton Hospital, directly negatives any idea of consumption being a distinctly infective disease, like a zymotic fever.

2. Phthisis is not, in the ordinary sense of the word, an infective disease; the opportunities for contagion being most numerous, while the examples of its action are exceedingly rare.

3. In the rare instances of contagion through inhalation,

¹ *Brit. Med. Jour.*, Sept. 30, 1882.

the conditions appear to have been—(1) close intimacy with the patient, such as sleeping in the same bed or room; (2) activity of the tubercular process, either in the way of tuberculosis or of excavation; (3) neglect of proper ventilation of the room.

4. In addition to the above, a husband may, though he rarely does so, infect his wife by coition; and this risk is considerably increased in the event of pregnancy.

5. By the adoption of proper hygienic measures, such as good ventilation and separation of consumptive from healthy people at night, all danger of infection can easily be obviated.

Dr. H. F. Formad read a paper, by invitation, before the Philadelphia County Medical Society, Oct. 18, 1882, entitled "The Bacillus Tuberculosis, and some Anatomical Points which suggest the Refutation of its Etiological Relation with Tuberculosis."¹ He is of opinion that Koch's theory as yet lacks confirmation; that, while it may be correct, much more work is needed to make his results conclusive.

Having devoted four years to special study of the minute structure of connective tissue of scrofulous persons and animals, with the aid of a number of able and diligent assistants, he has reached results and facts which, if they are confirmed by others, will go far to modify the received doctrine of phthisis and tuberculosis.

He claims that his researches clearly show the following points:

1. The predisposition to tuberculosis in some men and animals, the so-called scrofulous habit, lies in the anatomy of the connective tissue of the individual, the peculiarity being a narrowness of the lymph-spaces and their partial obliteration by cellular elements.

2. Only beings with such anomalous structure of connective tissue can have primary tuberculosis, and such animals invariably do become tuberculous from any injury resulting in inflammation, or from repeated injuries.

3. Scrofulous beings can have no other than a tuberculous inflammation, although it may remain local and harmless.

4. Non-scrofulous men or animals may acquire the predisposition to tuberculosis through malnutrition and confinement;

¹ *Phil. Med. Times*, Nov. 18, 1882.

the latter bringing on the above mentioned anatomical peculiarities in the connective tissue.

5. No external etiological influences are necessary to cause tubercular disease other than those which ordinarily produce inflammation, and even scrofulous beings will not become tuberculous unless local inflammation is set up. No inflammation, no tuberculosis.

6. Non-scrofulous animals, so far as can be established now, may acquire tubercular disease through injuries of serous membranes, viz: peritoneum, pleura, etc., and here even without any special virus whatsoever. Clinical observations on the post-mortem table show similar conditions and prove the same in man.

7. The bacilli, which it is the merit of Koch to have first proved to infest tissues affected by tubercular disease, are not necessary for its causation, even if a special organism exist and be really possessed of this faculty. The presence of bacilli (so far as our present research goes) is secondary, and appears to condition the complete destruction of the tissue already diseased and infected by them, and this destruction is in direct proportion to the quantity of the organisms, which thus regulate the prognosis.

8. From the results of microscopic examination, from numerous observations upon the post-mortem table and on clinical grounds, I have come to the conclusion that phthisis is not a specific infectious disease, but that the individuals suffering from tubercular disease are specific themselves originally, and form a special species of mankind, the "scrofulous."

9. Scrofulosis is a condition which may arise from malnutrition and seclusion, in any being, and thus may be produced artificially. It always depends upon the demonstrated anatomical changes in the connective tissue.

10. An analysis of Koch's experiments shows that he has not proved the parasitic nature of phthisis or that there exists a special bacillus tuberculosis; so that the infectiousness of tubercular disease is still *sub judice*.

Dr. Formad's position, as Demonstrator of Morbid Anatomy in the University of Pennsylvania, and his association with Dr. H. C. Wood in the researches on diphtheria for the National Board of Health, gave him unusual facilities for investigation upon animals and observation upon morbid specimens from the post-mortem room.

The result of examinations of several hundreds of different animals of various species and of other hundreds of patholog-

ical specimens, has led him to the conviction that there is a distinct difference of anatomical structure in the connective tissue of the scrofulous animals (rabbits and guinea pigs) and men, as compared with non-scrofulous animals (cat, dog, etc.) and men. In the former the lymph-spaces and perivascular spaces are narrower and fewer in number than in the latter; in the former, besides the nuclei of the endothelial cells, which are seen at more or less regular intervals, and which are generally of fusiform shape, there are many more free, round, irregular shaped cells than in the latter, and frequently these are seen to block up the lymph-spaces. So true is this, Dr. Formad says, that any one familiar with the use of the microscope can distinguish the variance in the two tissues by the shape and quantity of cells, if not by the size and shape of the lymph-spaces, the latter requiring more experience.

The result of carefully conducted experiments and studies as to the manner in which these different kinds of connective tissue act when subjected to the influence of inflammations, show that in the non-scrofulous, inflammatory products are fully taken up and the parts restored to their normal condition, while in the scrofulous, the lymph-spaces, being smaller and already partially obstructed, do not so fully effect this, and caseous degeneration, with more or less destruction of the tissues themselves, takes place with the development of tubercular disease, which may be local or may extend and become general. Further study makes it seem probable to him that scrofulous beings do not necessarily become tuberculous—do not become consumptive if they escape a bronchitis or pneumonia.

By keeping non-scrofulous animals (cats and dogs) in close confinement and on rather poor diet for several months, it was found possible to produce artificially a scrofulous condition, as found by microscopic examination of the connective tissue as well as by the result of post-mortem examination.

On the other hand, experiments, clinical observations and autopsies, show that in normal non-scrifulous subjects tuberculosis may follow upon inflammations of serous membranes, though not upon inflammations of other parts. The anterior chamber of the eye, which is occasionally used as a point for inoculation with tubercular virus, is in all essential regards a serous cavity: of the same character is the choroid coat of the eye, in which tubercles are so readily demonstrated by ophthalmoscopic examination in cases of miliary tuberculosis. Dr. Formad states that there are on record cases of injuries to the eye-ball in non-scrifulous persons which led to miliary tuberculosis. He also suggests that croupous pneumonia may lead to tuberculosis in the non-scrifulous, by reason of the fact that the epithelium lining the air-vesicles approaches so closely in histological character the lining of the serous membranes.

In conclusion, Dr. Formad says, that the natural history of tuberculosis, as he has studied it, is surely against the existence of a special poison, such as is now offered again by Koch; that while it is possible that Koch's bacillus tuberculosis in itself is capable of producing the disease, yet it is clearly proven that no infective agent is required to produce tuberculosis, and tuberculosis may be produced as well by introducing sand or clean powdered glass into the peritoneum or other serous cavity as by injecting the cultures of bacillus tuberculosis.

"Koch has discovered that tubercle-tissue is always infested by bacilli, and this is correct; but this tubercle-tissue is not created on account of, or caused by, the bacilli. These organisms invade the tissues in question solely because it is a culture medium favoring their predominant development."

Finally, leaving to future investigation the question whether the bacillus tuberculosis stands in any causative relation at all to tuberculosis, he thinks that it certainly does play an important rôle in phthisis, in conditioning the fatal issue of the

disease, by effecting the complete destruction of diseased tissues which, without being infested by them, would recover or be transformed into a harmless tissue; and would regard the study of bacteria as *causa mortis* as no less important than that as *causa morbis*.

Dr. H. D. Schmidt, President of the New Orleans Pathological Society, at a meeting of that society November 20, gave a microscopic exhibition by which he claimed to demonstrate that the objects which Koch calls bacilli tuberculosis are simply fat crystals. Dr. Schmidt is a conscientious, painstaking investigator, and he feels confident that Koch has fallen into a serious error.

GLASS COVERS FOR DISSECTING TABLES.—Dr. C. W. Cathcart, Lecturer on Anatomy at the Royal College of Surgeons, Edinburgh, reports the use of a thick glass cover to his dissecting table, instead of the zinc plating previously employed, with such satisfactory results that he submits the method publicly to the notice of all those interested. With a glass of half inch thickness, firmly imbedded in putty and properly secured, any ordinary wear and tear need not be feared, though it would be unwise to put its strength to the direct test of hammering.—*Brit. Med. Jour.*, Nov. 25, 1883.

FEMALE PHARMACISTS.—A school of Pharmacy exclusively for women has just been organized in Louisville, under the supervision of the Polytechnic Society of Kentucky, with a Board of Directors from among the most influential citizens. The experiment of employing female pharmacists has already been tried in that city with entire satisfaction. In this way there is practically opened for woman a new field of labor which is specially adapted to her capabilities.

BOOK REVIEWS AND NOTICES.

CHRONIC BRONCHITIS. Its forms and treatment. BY J. MILNER FOTHERGILL, M. D., Edin., etc. With numerous illustrations. *New York: G. P. Putnam's Sons.* 1882. 8vo., pp. 160; Cloth, \$1.50.

While chronic bronchitis is by no means so common a disease in our country as in England, it is not a rare one, and a monograph upon the subject by one who has had such extensive opportunities for its study as have been afforded to Dr. Fothergill, will be of value to many of us here. The volume consists of three chapters, respectively entitled Introductory; The Objective and Subjective Phenomena; Pathological Relations; Forms: Sec—Asthmatic—Catarrhal—Cirrhotic—Emphysematous—Degenerative—Mitral—Gouty; Treatment. Many of the suggestions for treatment are exceedingly valuable on account of their applicability in other conditions, as well as in those dependent upon bronchitis. This book is one that will be a help to young practitioners in many ways.

NERVOUS DISEASES. Their description and treatment. A manual for students and practitioners of medicine. BY ALLAN McLANE HAMILTON, M. D., etc. Second edition, revised and enlarged. With seventy-two illustrations. *Philadelphia: Henry C. Lea's Son & Co.* 1881. Svo., pp. 598; cloth, \$4.00. For sale in St. Louis by J. H. Chambers & Co.

In no department of medical science is more work of value and importance being done in these busy days than in that which treats of the physiology and pathology of the nervous system.

It has become a matter of absolute necessity that the general practitioner should be familiar with details of symptomatology and treatment of nervous disease, which only a few years ago were wholly unrecognized; and it is more and more the case that all must give some special study to this class of diseases.

The volume before us is one of the most valuable contributions to the literature of this subject that has come from the teeming medical press in the last few years.

The first edition of Dr. Hamilton's treatise, though severely criticised by some, was generally well received by the profes-

sion; and the second edition has been thoroughly revised and enlarged so as to present the result of more extended observation and riper experience.

The descriptions of the various forms of nervous disease are generally clear and lucid, and the directions as to treatment are practical and serviceable.

We heartily commend the book to our readers as one which they should have upon their table for study and reference.

THE HOSPITAL TREATMENT OF DISEASES OF THE HEART AND LUNGS, with over three hundred and fifty formulæ and prescriptions as exemplified in the hospitals of New York City. BY CHARLES H. GOODWIN, M. D. *New York: C. H. Goodwin, M. D.* 1883. 16mo., pp. 196; cloth, \$1.50.

This little volume contains a résumé of the treatment of the several diseases of the lungs and heart by the attending physicians of the various hospitals in New York City.

The conception of the work is good. Dr. Goodwin has undertaken a work that we think will prove very valuable to the profession and profitable to himself. The immense number of recent and older graduates from the New York Medical Colleges will be glad to have in so convenient a form as this a statement of the methods of their instructors, and many other practitioners throughout the country will seek to learn the therapeutic methods which have brought the best results in the great metropolis.

We think too that Dr. Goodwin has well carried out the plan which he proposed. Of course there is nothing that is original in the matter of the work, nor does the author offer any criticism or comment upon the different methods of treatment. He simply undertakes to state the practice of these prominent men. If he completes as satisfactorily the volumes recording the treatment of other diseases as he has done those of the thoracic cavity, his work will be heartily appreciated by the profession and he will reap a handsome pecuniary reward.

DISEASES OF WOMEN: including their Pathology, Causation, Symptoms, Diagnosis and Treatment. A manual for students and practitioners. BY ARTHUR W. EDIS, M. D., Lond., etc., etc. With one hundred and forty-eight illustrations. *Philadelphia: Henry C. Lea's Son & Co.* 1882.

This is a well digested and thoroughly prepared manual for the use of students and younger practitioners. The descriptions are clear and concise; and the directions for treatment are

such as commend themselves to the good sense and judgment of the practitioner.

Dr. Edis has a terse style, and states facts and opinions in few words yet without ambiguity. His book is one that is interesting to read, and the arrangement is such as to make it an easy one to refer to. It will be a popular book with the profession, and deservedly so, as it is well adapted to every-day work; and while it does not usurp the place of the more exhaustive treatises of Thomas or Barnes, it is more condensed than those volumes, dealing less fully with matters of theory and furnishing that which has been tried and tested by time and experience.

E. M. N.

BOOKS AND PAMPHLETS RECEIVED.

Legal Medicine. By Charles Mayott Tidy, M. B., F. C. S., etc. Philadelphia: Henry C. Lea's Son & Co. 8vo., pp. 639. Sheep.——Water-Analysis. A Hand-book for Water-Drinkers. By G. L. Austin, M. D. Boston: Lee & Shepard., 1883. 16mo., pp. 48. Cloth, 50 cents.——Rheumatic Gout and some Allied Diseases. By Morris Longstreth, M. D., etc. New York: William Wood & Company. 8vo., pp. 280. Cloth. (Wood's Library, 1882.)——A Treatise on the Practice of Medicine for the use of Students and Practitioners. By Roberts Bartholow, M. A., M. D., etc. Third edition, revised and enlarged. New York: D. Appleton & Co. 8vo., pp. 918. Cloth.——The Prevention of the Puerperal Diseases. By Richard B. Maury, M. D., Memphis, Tenn. Reprint from the Trans. of Med. Soc. of Tenn., 1882.——A Treatise on Fractures. By Lewis A. Stimson, B. A., M. D., etc. With three hundred and sixty illustrations on wood. Philadelphia: Henry C. Lea's Son & Co., 1883. 8vo., pp. 598. Sheep.——The Proper Time to Remove the Placenta with Reference to the Prevention of Post-Partum Hemorrhage. By B. F. Wilson, M. D., Salisbury, Mo. Reprint from the Am. Jour. of Obst., Oct., '82.——Electricity in Medicine and Surgery. By Geo. C. Pitzer, M. D., etc. St. Louis, 1883. 8vo., pp. 83. Cloth, \$1.00.——Use of the Ecraseur for Curing Deep-seated Fistula in Ano. By J. M. F. Gaston, M. D., of Campinas, Brazil. Reprint from *Am. Jour. of Med. Sci.*, July, 1882.——Railroad Surgery. By Dr. J. W. Trader. Reprint from Transactions of Missouri State Medical Assoc.——Some Points on the Administration of Anesthetics. By Geo. H. Rohé, M. D. Reprint from the *Medical Chronicle*.——Lesions of the Orbital Walls and Contents due to Syphilis. By Chas. Stedman Bull, A. M., M. D. Reprint from the *New York Medical Journal*, August, 1882.——Annual Report of the Surgeon General United States Army, 1882.——The Treatment of Syphilis with Subcutaneous Sublimite Injections. By Jno. V. Shoemaker, A. M., M. D. (From advance sheets of Trans. Am. Med. Assoc.)——The Oleates and Oleo-Palmitates in Skin Diseases. By John V. Shoemaker, A. M., M. D. (From advance sheets of Trans. of the Penn. State Med. Soc.)——The Therapeutic Action of Potassium Chlorate. By John V. Shoemaker, A. M., M. D. (From advance sheets of Trans. of the Am. Med. Assoc.)

TRANSLATIONS.

CASE OF EXTIRPATION OF THE GALL-BLADDER— ACCOUNT OF CHRONIC CHOLELITHIASIS: CURE.

DR. CARL LANGENBUCH, BERLIN.

According to the united opinions of modern authors, the gall-bladder is the proper site of the formation of biliary calculi; it is but rarely, comparatively speaking, that they originate in the biliary passages. It is only the gall-bladder calculi that will be here spoken of. According to the latest investigations, calculi 1 ctm. in diameter can not pass the cystic duct; they are more likely to escape the viscus through an ulceration in its coats than by the natural channel.

Fortunately, most cases of cholelithiasis recover spontaneously; we have remedies of effect in this disorder. While all expectations of dissolving the calculi in the gall-bladder are illusory, still we can facilitate the passage of the concretions, and by regimen amend the tendency to their production. Nevertheless, cases will arise that defy art. In such the question arises, shall they be left to their unhappy fate? or shall a radical cure be attempted? that is to say, shall we extirpate that organ which is the site of the disorder, the gall-bladder?

Of course, the answer must depend upon the propriety of such a step, viewed from a physiological stand-point, and in the light of surgical experience. In some groups of animals the gall-bladder is absent. Even in the human species there has been entire congenital absence of the viscus, as well as its occasional obliteration in the course of disease; and as a rule these conditions, apparently, do not impair the health. As to the technic of the operation itself, as the result of a number of experiments upon the cadaver, I have concluded that of all the operations involving incision of the abdominal walls the extirpation of the gall-bladder, with preliminary ligature of the

cystic duct, is the least serious. The method is as follows: An horizontal incision is made in the right abdominal wall, over the edge of the liver, and one meeting it (T shaped cut) running along the outer border of the rectus abdominalis muscle; both 10-15 ctm. (3-5 in.) long. The bladder will now be exposed. Next, a flat sponge of sufficient size is to be pressed in upon the colon, so as to force it and the adjacent small intestine downwards and under the abdominal wall. The liver should then be raised as far as possible, when the edge of the lesser omentum (lig. hepato-duodenale) will come into view, in which is contained the common bile duct, etc. In order to get at the cystic duct, it is best first to detach the gall-bladder from the liver, which is effected by careful touches of the knife. A short distance from the bladder a ligature is to be tied about the duct, and the viscus then cut loose. As the duct must remain permanently closed, catgut cannot be used as a ligature. Should the bladder be distended with bile, it should be emptied by aspiration before attacking it.

CASE.—Mr. D—, aged 43, clerk, hitherto of good health, in 1866 suffered from a sudden attack of biliary colic. At first such attacks occurred one to two times annually. In 1869 marked icterus attended the attacks, lasting two months. From this time on, the colics became more frequent, and were always accompanied with more or less jaundice. The calculi found in the stools were dark colored and about the size of peas. The patient visited Carlsbad three successive years, but the disease rather increased. His weight continually diminished. Area of hepatic dullness remained normal; the region of the gall-bladder was not sensitive upon pressure. There was much gastric disturbance, appetite small, much nausea and constipation. Later the colic occurred almost daily, and sometimes so severely as to lead to syncope. Morphia was freely used to alleviate his suffering.

The case being desperate I suggested operation, to which the patient agreed as the only hope left. He entered the hospital July 10th, 1882. Five days he remained in bed, during which time there were two attacks, the pain distinctly beginning at the gall-bladder, and extending thence over the abdomen.

On the 15th the operation was made, under all antiseptic

precautions. The gall-bladder did not appear to be recently inflamed, although its walls were evidently thickened. It was moderately filled with bile, and was emptied by aspiration. Opening it, there were found two small cholesterine calculi; the antecedent light purgations had obviously evacuated the calculi. Some hepatic venous hemorrhage followed the detachment of the viscus, which was checked by application of catgut ligature. The patient suffered no pain after the operation, and slept well the following night.

July 16th. No pain, temperature and pulse normal, patient very hungry. 17th. Hunger most prominent symptom; a little liquid food was allowed. In the evening patient rebelled against such regimen, and demanded food at all hazards. A small amount of meat and potato was given. 19th. Patient felt in respiration a sticking pain under and between the shoulder blades. 4 P. M. Temperature 38.6° C. (101.4° F.), pulse 110. Dry pleurisy was diagnosed. A warm water injection was administered and a laxative, to relieve the constipation. 20th. No evacuation as yet, otherwise condition good; temperature and pulse normal. 21st. Some of the sutures were removed from the wound that was already healed. Laxatives again prescribed. P. M. Liquid evacuation of the bowel, which gave great relief. By the 27th July the patient was able to leave his bed.

Up to date (middle of Nov., 1882) there has been no recurrence of the pains. The irritability of the stomach still exists, though not to the same degree. No morphia has been taken since the operation. His weight has steadily increased.—*Berlin Klin. Woch.*, Nov. 27, 1882.

DEATH OF M. HILLAIRET.—Professor J. B. Hillairet, the well-known dermatologist, recently died at the age of sixty-seven years. Two years ago his service at the Hôpital Saint-Louis, Paris, closed by reason of his reaching the age at which Paris hospital physicians are retired. Nevertheless his undiminished mental activity and personal industry continued to the last, and at his death he left unfinished a valuable medical work for which he was then perfecting important data.

REPORTS ON PROGRESS.

SURGERY.

Nerve-Stretching—Death.—C. A. WHEATON reports the case of a farmer who had suffered for six months from a most severe sciatica, that had been unsuccessfully submitted to almost every variety of treatment. The lower half of the thigh and leg was much atrophied, and his general condition was bad. A seton introduced a little below the point of exit from the pelvis gave no relief. It was decided to make the operation of nerve-stretching, which has succeeded so finely in many cases. The operation was performed in the usual manner; the nerve was found swollen, injected, and much less dense than normal; the stretching was made with a good deal of force, but no "sensation as of something giving away" was felt. The patient rallied well from the anesthesia, but in two hours after the operation was suffering as much pain as before. One-fourth of a grain of morphia hypodermically, and repeated in two hours, gave no relief, and he suffered constantly for about thirteen hours, when he became suddenly unconscious and died without a struggle.—*Trans. Minn. State Med. Assoc.*, 1882.

Forward Dislocation of the Inferior Extremity of the Ulna.—PHILO E. JONES reports the case of a strong, muscular man, who, while engaged in unloading some logs from a wagon, was injured, the right fore-arm and wrist being caught between the log and the rim of the wheel, the styloid process resting upon the tire, with the full weight of the log pressing upon the anterior surface of the wrist. He complained of pain in the wrist. The fore-arm was supinated, and could not be pronated; the wrist could be flexed and extended; the natural prominence of the ulna was wanting, while in its stead a marked depression existed. Several ineffectual attempts were made to accomplish the reduction by extension and supi-

nation, counter extension being applied at the elbow, then forcibly pronating the hand, at the same time pressing backwards the dislocated head of the bone with the fingers of the right hand, as described by Mr. Parker, of Liverpool. The reduction was finally accomplished by flexing the fore-arm at a right angle with the arm, and then gradually extending the hand and rotating it outwards until it was brought into the supine position, when the bone suddenly slipped into its natural position with an "audible snap."—*Trans. Minn. State Med. Assoc.*, 1882.

Cholecystotomy.—LAWSON TAIT reports the third and fourth successful cases of cholecystotomy. The one was that of a woman, æt. 28, who had for some time suffered from paroxysmal pain in the right side, associated with a tumor which appeared and disappeared. There was no jaundice in the case at all. The attacks of pain had commenced about the period of puberty; they varied in degree and duration, but generally were sudden in their onset and apt to be excited by exercise. The tumor in the upper right part of the abdomen was discovered in 1880, after the birth of her second child. It seemed solid, and shaped like a kidney; it was tender on pressure, and when the hips were raised above the shoulders it could be made to disappear. Her physician came to the conclusion that the tumor was the right kidney floating. All the symptoms were aggravated after the birth of her third child. Operation was proposed, but it was six months before she consented. June 15th Mr. Tait made an incision over the tumor, which proved to be the distended gall-bladder. He emptied it by an aspirator, removing about a pint of thick, glairy mucus. He then laid it open, and removed some eighty gall-stones, the largest of which weighed fifteen grains. The aperture in the gall-bladder was then stitched to the wound in the abdominal wall, and a drainage tube introduced into the gall-bladder. The recovery was rapid and uninterrupted, the highest temperature being 100.4° , and the highest pulse record 84. The stitches were removed on the eighth day and the tube on the twentieth, and ten days later there was only a small sinus left, from which a little mucus continues to be discharged.

The fourth case was that of a woman, æt. 37, upon whom the operation was performed in exactly the same manner as the other. There were sixteen gall-stones removed, varying in weight from seven to thirty-five grains. The drainage tube was removed on the third day, and the stitches were all removed and the wound was almost healed ten days after the operation.—*Brit. Med. Jour.*, Nov. 17, '82.

Anesthesia by Rapid Breathing.—W. A. BERRIDGE contributes to the general information on this subject his observations upon some interesting cases, adding that it is not an easy thing to get a patient to breathe effectually. One must urge the patient to breathe harder, deeper, faster, illustrating the manner even to one's own discomfort—insisting upon undiminished effort, though the patient grows black and blacker in the face—until the requisite relaxation is secured. He adds that the only cases in which he has failed have been those where he could not get the patient "up to concert pitch," and in order to insure success it requires almost as much exertion on the part of the physician as of the patient.—*Brit. Med. Jour.*, Nov. 25, 1882.

Gelsemium in Tetanus.—DR. JOHN B. READ reports the case of a strong, healthy mulatto woman, twenty years of age, who was suffering from tetanic convulsions, caused by a bit of broken glass upon which she had trodden, and which was imbedded in her heel. All attempts to find the fragment proving ineffectual, the wound was filled with morphia and a poultice applied. Familiar with the power of gelsemium to relax the voluntary muscles, he ordered twenty minims of the fluid extract every two hours, alternating with the same quantity of liquor potassæ at the same intervals. On the morning of the second day there was a slight improvement in the rigidity of the jaw, and the general spasms occurred only at intervals of three or four hours; but as the day advanced the jaw became more rigid, and there were violent contractions in the front and back of chest.

The dose of gelsemium extract was then increased to forty minims every two hours. During the third day the improvement was marked, but the medicine was still continued in

forty-minim doses. After this period the improvement was rapid and regular, and the dose was reduced to twenty minims, at which it was continued till full convalescence. There were no disagreeable symptoms of dimness of sight, double vision, or loss of strength accompanying its use, as sometimes is the case from much smaller doses; and as it exerts such a powerful control over spasms of the voluntary muscles, Dr. Read suggests its use in hydrophobia, especially when administered hypodermically.—*Brit. Med. Jour.*, Dec. 23, 1882.

MEDICINE.

Therapeutic Effects of Hyoscyamine.—THOMAS BROWN, M. D., Staff-Surgeon R. N., reports several cases in the Royal Naval Hospital at Yarmouth, England, in which the use of hyoscyamine has been the subject of careful observation on the part of himself and others, with the following conclusions:

1. The observations show the uncertainty of the action of hyoscyamine when given by the mouth and in large doses.

2. They also show the marked superiority of the hypodermic method, and the confidence with which, in some cases, its effects could be calculated upon, and the dose increased or diminished in accordance with the violence of the patient.

3. In hyoscyamine we have a drug which is often capable of controlling the violence of a furious maniac, and, it may be, of checking the torrent of rushing ideas on which he is borne along, soothing without putting him to sleep, and in these respects differing from morphia or chloral. In noisy and destructive general paralytics, the quiet air of comfort and repose following a moderate dose was such a contrast with the previous condition as to strongly impress every one with the feeling that, by the introduction of hyoscyamine, another valuable aid had been secured in the care and treatment of such cases.

4. No curative action can be claimed for the drug. Even in acute mania it did nothing more than moderate or check, for a time, the violence of action, and, perhaps, render less vivid and overwhelming the terrifying whirlwind of delusion of the frantic patient.—*Brit. Med. Jour.*, Nov. 25, '82.

Boro-Glyceride in Diphtheritic Sore Throat.—W. ALLAN JAMIESON writes that having tried various methods of treatment in an epidemic sore throat, which had been prevalent in Edinburgh for several months, he had derived the most satisfactory results from the internal administration of salicylate of soda, in ten-grain doses, and the application locally of a saturated solution of boro-glyceride in glycerine. The pain was promptly relieved, the fever reduced, the inflammation controlled, and the patient rapidly restored to health.—*Edinb. Med. Jour.*, Dec., 1882.

Epidemic of Typhoid Fever Traced to Lemonade.—A very singular outbreak of enteric fever at Evesham, and its neighborhood, has been the subject of exhaustive investigation with the following results: Sixty-nine persons were attacked, six of the cases proving fatal. The disease was distributed through eleven villages, included in an imaginary circle having a radius of five miles from its center, Evesham. The cause was traced to a low-lying meadow abutting on the Avon, and crowded on a particular date with people witnessing the local regatta. All persons first attacked had been present there, and at this meadow, no case of fever occurring among those people thronging any other locality. Of forty-six persons attacked thirty-two certainly, and eleven probably, drank while in this meadow water in the form of lemonade, or mixed with spirit, the water being obtained from a well in the immediate neighborhood. Analysis showed this water seriously contaminated with animal organic matter, and the well has been closed by order of the magistrate.—*Brit. Med. Jour.*, Dec. 23, 1882.

The Curative Effect of Chloral in Albuminuria.—THOMAS WILSON reports several cases of albuminuria relieved by the use of chloral, in which serious symptoms succumbed to this remedy, and the patients recovered from apparently hopeless complications under its judicious use.—*British Med. Jour.*, Dec. 23, '82.

Chamomile Infusion in Infantile Diarrhea.—DR. CHRISTOPHER ELLIOT, while searching for a cheap and simple remedy for this disease, and one at the same time less dangerous than opium

and its compounds as found in "soothing syrup," had his attention directed to an infusion of chamomile flowers, having previously observed its good effects in the flatulent dyspepsia and colic of young children. Unaware that Ringer had recommended it, Dr. Elliot tested its value in infantile diarrhea, with such success that at present he employs almost no other remedy in this complaint. He finds it especially useful in the diarrhea connected with dentition when the stools are many, green in color, or slimy and streaked with blood. A few doses will quickly quiet a fretful child suffering from pain and cramp. The dose of this infusion is ʒss-ʒi, for a child under one year, and for a child over that age double the quantity, given three times a day or oftener, according to the severity of the attack.—*Practitioner*, Dec., '82.

Treatment of Whooping Cough.—DR. HARRIET E. PRESTON in reporting on the diseases of children says: Whooping cough has lost its terrors in the hand of the skillful practitioner, and may be limited to a very mild and brief form of coryza.

The coal-tar products, notably cresyline, have almost specific action in whooping cough. Of this last preparation a few drops, from two to six, vaporized by heat and breathed by the patient, gives speedy relief, is easy of application and safe; may be repeated as often as the spasm of coughing returns, but there will not be usually many such returns.

She also reports success from the use of the *acetates* of morphia and atropia, as in the following formula:

R.	Morphiæ acetatis,	-	-	gr. j.
	Atropiæ acetatis,	-	-	gr. $\frac{1}{4}$.
	Syr. simplicis,	-	-	ʒ i.

M. Sig. Five to thirty drops once or twice daily according to the age of the patient and the severity of the disease.—*Minnesota State Transact.*, 1882.

A BUST OF THE LATE PROFESSOR JAMES P. WHITE, of Buffalo, was presented on behalf of his son, Mr. James Platt White, at the meeting of the New York Academy of Medicine, December 21. The presentation was made by Dr. Flint, a life-long friend of Professor White, and through him appropriate resolutions and an expression of thanks were made by the Society to the donor.

SOCIETY PROCEEDINGS.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, December 28th, 1882—The Pres., Dr. Tyson, in the Chair.

TUBERCULOSIS OF SPLEEN, LIVER AND KIDNEYS.

Exhibited by DR. SHAKESPEARE.

These specimens were presented without a history of the case and showed exuberant vegetations in pericarditis, abundant miliary tubercles of the pleura, of the liver, of the spleen, of the kidneys, and of the lymph glands in the region of the head of the pancreas. The subject came from the medical wards of the Philadelphia hospital, and was last under your care, Mr. President, as visiting physician. They are brought to the notice of the society mainly because the autopsy was made this P. M., and because many of the members have not had opportunities of examining such perfect examples of extensive and diffuse tuberculous infiltration without more serious involvement of the parenchyma of the lungs. Autopsy six hours after death of C. J., colored, æt. 60. Diagnosis: Pericarditis and pleuritic effusion, with strong bands of adhesions between parietal and visceral pleura. Thorax. Left pleural cavity completely obliterated by adhesions. Right ditto contained a large amount of straw-colored serum. The lobes of this lung were compressed against the spinal column and were atelactatic. The lower lobe was firmly adherent to the diaphragm, and the three lobes were strongly united by adhesions. The parietal pleura was thickened and everywhere studded with minute gray semi-opaque miliary tubercles; the visceral pleura was in a similar condition, except that the tubercles were less numerous. The cut surface of the right lung presented nothing abnormal save absence of air, but the sense of touch showed beneath and near the pleura a few scattered minute points, much smaller than millet seeds. The pleura of the left lung was also studded with nu-

merous miliary tubercles, and the tissue of this lung was similar to that of the right. It was, however, crepitant. The pericardial sac contained $2\frac{1}{2}$ ounces of straw-colored serum. The whole heart was covered with an exuberant crop of vegetations. The cardiac walls were perhaps slightly softer than usual, otherwise normal. Abdomen. Peritoneum normal, no effusion. Liver, slightly enlarged, with surface here and there raised by flat elevations ranging in size from a hemp-seed to that of a hazel-nut, capsule normal. The nodules were firm and of a yellowish tint, the intervening tissue was of a dark red. Section of the organ deeply revealed similar nodules diffused through its substance which seemed otherwise firm and normal. The spleen was slightly enlarged, firm and extensively infiltrated with tubercles. The pancreas was normal, but the lymph glands near it were much enlarged, but neither softened nor caseous. No caseous focus was anywhere detected. The kidneys appeared normal, except for one or two more or less pyramidal yellow points. The case presents several points of interest: 1. Former history unknown. 2. Several aspirations removing considerable pleuritic fluid. 3. What was the origin of the numerous tubercular eruptions? and if there was auto-infection, what was its probable source? Dr. Tyson then gave a résumé of the ante-mortem history.

DR. FORMAD here related a case of general tuberculosis and showed the specimen; but no notes having been forwarded to the recorder, any fuller account than the remarks of Dr. Tyson is impossible.

DR. TYSON said he regretted having to admit that he was less familiar with the history of the case than he should have been, since the patient was in his own wards in the Philadelphia hospital. He had been previously thoroughly studied by Dr. Bruen, whose absence he regretted, as Dr. Bruen knew so much more about the case. The man had however been more than once tapped. He was a colored sailor, aged 60 years. When Dr. Tyson took charge of the ward in September, the man presented the physical signs of double pleuritic effusion, orthopnea, a feeble transmitted heart sound, but no cardiac murmur. There was edema of the legs. He was tapped with great benefit, and under a restorative treatment he rapidly improved, so that he soon became one of the walking cases in

the ward, attracting little attention. About December 1st, he became very much worse. The orthopnea and other signs of accumulating fluid returned; and so did the edema of the legs. His urine was repeatedly examined for albumen, with negative results. He was tapped upon the right side and three pints of fluid removed, with but partial relief. The other side was also aspirated without success. A cardiac friction sound was noted, which seemed to be pleuro-pericardial, but in the light of the autopsy it was probably pericardial. He died on the 13th of December. With reference to the case cited by Dr. Formad, it had also seemed to be a simple plastic pleurisy, with feeble, distant heart sounds, with no murmurs occurring in a case where after prolonged illness death resulted from exhaustion. Dr. Tyson had never seen such extensive new formations resulting from serous inflammation, the large lymphoid masses in the abdomen having at first suggested the idea of malignant disease. The patient had a distinctly scrofulous history. The father had died after pleurisy with cheesy deposits, followed by miliary tubercles of the lungs later in life. Four or five uncles and one aunt had all died phthisical from between 20 to 30 years of age. Dr. Bartholow asked if the range of temperature accorded with that usually found in phthisical cases. Dr. Tyson said that in the case related by Dr. Formad the temperature was seldom, if ever, above 101° , mostly below this point. In the case reported by Dr. Shakespeare he was unacquainted with the temperature record.

DR. NANCREDE demurred to the view that repeated tapping had any causative relation to the development of tubercle after pleurisy, but thought that the chronicity of the affection and altered condition of the pleural sac which demanded frequent operations was the real explanation of the alleged fact.

DR. MUSSEY said that a relationship between pleurisy and pulmonary tuberculosis could not be denied, but whether the pleurisy or the tuberculosis be antecedent was difficult of solution. That the former is primary may be inferred from the fact that persons are considered as threatened with phthisis who have sub-clavian arterial murmurs due to the pressure or pulling on the artery of organized lymph. Likewise are the various friction sounds and exocardial murmurs noted to pre-

cede tuberculosis, and especially to occur in those tuberculously predisposed. Examples of both cases have come under his observation. It seems to him that a primary acute pleurisy is a rarity, occurring in a non-tubercular subject. The last series of cases he had seen, of what would be called primary pleurisy, were in persons predisposed to tubercle, and in some of the cases tubercle subsequently developed. In short, so-called primary plastic pleurisy occurs only in tuberculously disposed individuals; other forms are secondary to some other process, as Bright's disease, septicemia, etc. Trousseau calls attention to latent pleurisies with effusion as being often an expression of a tuberculous diathesis, while also a latent pleurisy may occasion development of that diathesis. Two cases illustrating these views have lately come under his notice.

DR. O'HARA said that although he had not had much experience with latent pleurisy he recalled a case of a young man seen five years ago, where extensive effusion into one side of the chest had unsuspectedly occurred, and when detected had been removed by tapping. Apparent recovery then ensued, to be followed in a few weeks by copious effusion into the other pleural cavity. Tapping was again resorted to; the effusion never recurred, and the patient remains healthy and free from tubercle at the present time. He would like to ask if when the term "all the serous membranes were affected" was used, those of the brain were included.

DR. TYSON replied that there had been no head symptoms in the sailor's case. In that mentioned by Dr. Formad, decided mental aberration, demanding watchful restraint, had been present. No inflammation of the meninges had been found, the only disease consisting of a small tubercle starting from the pia mater and dipping down into the brain substance.

DR. SHAKESPEARE closed the debate by referring to the causes of tuberculosis in general and its mode of diffusion through the organism. He called attention to the failure in discovering any caseous focus, while admitting the possibility of such, if minute, escaping the most painstaking search. In this and similar cases all that could be safely said was that *the caseous point was not found*. Assuming, for illustration, that the point in the kidney might have been the origin of the auto-infection in this case, he referred to the communication be-

tween the left renal vein and the inferior mesenteric vein, and the direct communication with the portal system thus effected. As to the point raised by Dr. Musser, he believed in plastic pleurisies distinct from tuberculosis. He had examined very many microscopic sections of pleuritic adhesions, and very many had proved to be free from tubercle. Authors who have made original investigations on man and the lower animals have also as distinctly recognized a plastic pleurisy *without* tubercle, as they have one associated with this formation. He thought tapping in a person not predisposed to tubercle was no more likely to produce this disease than tapping an anasarcaous limb. He was well aware of the facts dwelt upon by Drs. Musser and Formad, viz: the association of tapping with tuberculosis and of plastic pleurisy with tuberculosis; but he believed that the frequency of this association had been exaggerated. He thought that in view of the well grounded belief that in certain classes of animals, as well as in certain families of men, inflammation tends to linger, to produce accumulations which are prone to degeneration, and to excite local or general tuberculosis, it is more logical to conclude that in such cases as above mentioned there is at the outset a tainted constitution—a soil already sowed with the dormant seeds of disease, waiting to be awakened to their active processes of destruction by the stimulation of an exciting cause. The more frequent the action of the exciting cause the more certain is this dormant tendency to be aroused. [Dr. Shakespeare then proceeded to combat the views advocated by Dr. Formad in this debate. Owing to their non-reception by the recorder, Dr. Shakespeare's remarks are also of necessity omitted.]

TWO CASES OF CARCINOMA OF THE STOMACH.

Exhibited by J. H. MUSSER.

CASE I.—Scirrhus of the pylorus; general proliferation of the connective tissue; interstitial nephritis. Malignant disease of the pylorus and of the lesser curvature of the stomach was diagnosticated when the patient applied at the Medical Dispensary of the University Hospital, May 14th, 1882, for treatment, on account of the physical signs especially, and of some points in the clinical history. Palpation and percussion revealed a firm, non-pulsatile, immovable, slightly painful

tumor in the middle of the epigastric region, one inch to the left of the median line, about the size of a turkey egg. When lying down the abdomen was slightly scaphoid, but the left upper quarter was distended. A curved line extending downwards from the umbilicus to the flanks represented the lower limit of this swelling, which was soft and resistant, tympanitic on percussion, and with care could be discerned as starting from the hard tumor in the epigastrium. In short, it was due to a distended stomach. Although the tumor was not in the position of the pylorus, and although the patient had never vomited, yet pyloric disease was determined upon because of the gastric distention. On account of the absence of marked obstruction, the position and the occurrence of pain in the lumbar region, disease of the lesser curvature and the posterior wall was decided upon. The autopsy revealed that the malignant growth surrounded the stomach at the pyloric end, but being greater in extent in the lesser curvature. An adhesion to the left lobe of the liver explained the position of the tumor. The patient first noticed the localization of the disease in Nov., 1881, by the occurrence of pain in the epigastrium following a jar. She noticed that her health had failed three months before, and that menstruation had ceased six months previous to the epigastric pain. Note here the failure of health before any local evidences of disease—not even dyspeptic symptoms. She was a widow, æt. forty years, with one child; her health had always been very good, her circumstances moderate, and her habits exemplary. In addition to a constant burning pain, increased by food, her appetite was poor, tongue pale, with enlarged papillæ; flatulency was marked, and the bowels constipated. She presented a sallow, cachectic appearance, was somewhat emaciated, extremely anemic, with cardiac, arterial and venous blood-murmurs and accentuated second-sound. She was under observation until her death, Oct. 17th, 1882. The pain and constipation were relieved by treatment, but the course was only downwards. In addition, I may note the cachexia became more marked and the classical appearance of the face was wonderfully depicted—transverse and vertical lines on the forehead, and semi-circular lines around the mouth from the alæ of the nose to the chin, and vertical lines on the chin and lower lip. The hue of the countenance enlarged,

growing darker and darker. This peculiar hue of the face, Dr. Musser considered the most reliable symptom of approaching dissolution. It was noted one month before death. During the last two months of her illness she suffered much from soreness of the mouth and tongue, without visible lesions; from burning in the fauces; difficulty of deglutition; acidity; vomiting taking place every third or fourth day, of a clear acid fluid, coagulated milk, bile-stained, and "coffee-ground material." A painless, watery diarrhea occurred frequently with tarry masses. Edema of the feet and ankles took place six weeks before death. The tumor grew in size and changed position, falling downwards. Three days before death it was noted to pulsate, was tender, and was three inches long, extending from the median line to the left on a level with the umbilicus. Autopsy twelve hours after death: Extreme emaciation; rigor mortis marked; edema of feet. Heart slightly enlarged, the left ventricle walls eight and three-quarter lines in thickness; heart weighed seven ounces. Aorta one inch one-and-three-quarter lines in diameter, and slightly atheromatous. Deposits of fat along the septum were noted, and the muscular tissue itself was fatty. The stomach was in the position defined a few days before death; was greatly dilated, with the disease at the pyloric end extending along the lesser curvature four inches, along the greater curvature two inches, and completely encircling the organ. The stomach walls became thickened with much hypertrophied muscular coat as they approached the diseased area. The internal surface of the tumor was flat, elliptical, and defined by an everted lip of varying thickness about four lines high. The surface was uneven, some nodules being half an inch thick. The most central portion presented distinct evidences of ulceration. The liver was rather larger than normal, seemed fatty, and was not indurated. The kidneys were small, hard, and the capsule peeled off with difficulty. Microscopic examination of the stomach, liver and kidneys, Dr. W. E. Hughes assisting, showed abundant irregularly shaped epithelial cells, packed closely in a fibrous stroma, but slightly developed in, and containing numerous nuclei. Liver cells fatty and pigmented. Proliferation of the connective tissue around the hepatic and portal veins was noted, many nuclei proving its recent origin. The kidney was markedly

cirrhotic, the connective tissue being *not* of recent formation. Note the general proliferation of connective tissue in the organs. No albumen was detected during life in the urine, nor were any renal symptoms noted, yet there was undoubted interstitial nephritis belonging to the variety described by Gull, Sutton and Mahomed. The mal-assimilation consequent upon the gastric lesion was the predisposing factor in the production of this general change.

CASE II.—Scirrhus of the pylorus; symptoms simulating idiopathic anemia. F. R., æt. fifty-four years, white, German, resident of a healthy locality, but much exposed as lumberman during the winter. Addicted to constant use of spirits, malt-liquors, and tobacco. Had a fever of six weeks' duration at the age of sixteen years, and eight years ago some pulmonary inflammation. Never had malaria nor syphilis. Does not know cause of mother's death; seven brothers and sisters healthy; father died of old age; his own three children living and healthy. Admitted to University Hospital Dec. 20th, 1878. During the previous winter had numerous gastric attacks, as shown by pain and loss of appetite. In the spring and summer he lost flesh and strength, and was subject to pain in the bowels and in the hepatic area, flatulence, pyrosis and constipation, but never vomiting. On account of salivation, in June, he became especially debilitated. At time of admission, wt., 118 lbs., usual wt., 170 lbs. Lies on left side, perfectly apathetic, with the physical and mental processes slow of action. Extremities cold, very anemic; conjunctiva and mucous membrane very pale; sclerotics pearly white; complexion of a sallow, dirty hue. Palpitation of the heart, dyspnea, and subjective ear noises were noted. Temperature irregular. Appetite poor; flatulence, and pyrosis, pain and tenderness in epigastrium; no definable tumor, but a sense of induration. Hepatic and splenic areas of dulness normal. No venous hum. Heart sounds weak. Urine, sp. gr. 1018, neutral reaction, albumen one-sixth. No casts, bile nor sugar. Phosphates not in excess. Blood, white corpuscles in excess, red greatly decreased in number. Ophthalmoscopic examination: Slight retinitis; O. D. pallid; central artery dilated. Venous blood paler than usual. Absorption of choroidal epithelium, allowing choroidal circulation to be seen. Macula healthy; no hemorrhage throughout

fundus. Both eyes present the same appearances. A low typhoid state soon developed, with diarrhea and excessive flatulence. For three days prior to death, vomiting occurred. He died Dec. 30th, 1882. Autopsy: Stomach alone examined. It is to be regretted that the full record was lost. Stomach adherent to liver and transverse colon. Lesser curvature from pylorus, half-way to cardiac orifice, infiltrated with cancer, extending two inches over the anterior wall, and at the pylorus encircling the organ. Pancreatic and biliary ducts pervious. Microscopically, the growth was found to be scirrhus carcinoma.

REMARKS.—On account of the profound anemia and the absence of tumor and vomiting, idiopathic anemia was considered. The examination of the blood and the condition of the eye contra-indicated such a diagnosis. The normal size of the liver and spleen and the non-glandular involvement excluded leucocythemia. It is to be regretted that the exact numerical blood count was not recorded. In this case, the lesser curvature was very much involved, and a distinct tumor was absent—quite the opposite of case I.

TUMOR OF BRAIN.

Presented by DR. A. P. BRUBAKER for DR. H. LEAMAN.

John Jones, æt. fifty-three years, laborer. When first seen, the patient was lying on his back, with head drawn backwards into the pillow, and complaining of stiffness and soreness in back of the neck. The mouth was widely opened and parched, and the breathing deep and heavy. He was in a semi-unconscious condition, from which, however, he could easily be aroused, but soon relapsed into his former state, which was attended by stertorous breathing. Speech and deglutition were both interfered with, but not abolished. There was involuntary passage of the urine, but the bowels were constipated. Venereal ideas were excessive, but accompanied by complete impotence. Voluntary movements of the extremities and also the power of co-ordination were considerably impaired. Pulse and temperature were normal. Liquid food was taken with difficulty. His condition had been as described four days previous to my first visit, on Sept. 4th, '82. The symptoms gradually increased and coma supervened, which ended in

death, Sept. 17th, '82. Following history was obtained from the family: Twenty-six years ago the patient was confined to bed with "nervousness" for a period of two years, when he passed a calculus about the size of a date seed, again, a month later, another smaller one. His bladder continued to give him more or less trouble up to death. He had his clavicle broken nineteen years ago, but there was no injury to the head. About sixteen years ago he was suddenly seized, while at work, with a severe headache and became totally blind, which lasted for twenty-four hours. This was relieved by wet cups to back of the neck. From that time he was subject to what they called "shaking spells;" when standing, there would be a violent trembling of the knees and shaking of the arms. These attacks occurred about once a month, and, occasionally, three or four times a day. They increased from year to year in frequency and severity, and appeared to be excited by high winds and storms. In Feb., '82, he was seized with paralysis, beginning in the left little finger, thence gradually extending to the ring and middle fingers until the hand became powerless, but was able to move his arm. Then followed a numbness in the outer part of the left side, attended by impairment of the power of co-ordination, so that, on attempting, he was compelled to run to keep from falling. He frequently fell in the street and had to be carried home. Last February, loss of speech supervened, which lasted for one month; the patient then began to speak in monosyllables, after which speech gradually returned. Autopsy: Congestion of the entire brain. By removing it, four or five ounces of serum ran from the cranial cavity. Brain substance seemed to be normal throughout. In the right fissure of Sylvius was embedded a tumor about an inch-and-a-half in diameter, which was almost entirely concealed from view by the convolutions. It rested upon the convolutions of the island of Reil, completely disorganizing them. The inferior extremities of the ascending frontal and parietal convolutions were normal. The upper surface of the temporo-sphenoidal lobe were somewhat disorganized. The tumor apparently sprang from the pia-mater. Report of the Committee on Morbid Growths: "A section made from the tumor presented by Dr. Brubaker, and examined microscopically, showed that the growth was tubercular. Its his-

torical structure is seen to consist of fibrous tissue, constituting a reticulum, the meshes of which are filled with lymphoid cells. These appearances are very distinct at the peripheral zone of the tumor, while the center and inner zones are in a state of retrograde metamorphosis, presenting a very granular appearance, scarcely stained by the carmine. The blood vessels are mostly obliterated; their lumen being filled with coagulated blood or granular debris."—Dec. 28th, 1882.

ENLARGED LYMPHATIC GLANDS.

Exhibited by DR. W. H. PARRISH.

I show five lymphatic glands removed from the axilla of a patient whose breast I amputated about nine months ago. The case was then reported at the Obstetrical Society and was published in the *Medical News*, July 8th, 1882. The specimen was referred to a committee, and Dr. Beates made a microscopical examination and concluded that the growth was an adenoma that had undergone carcinomatous change. Of the enlarged glands presented this evening, three, about the size of an almond, were removed from the axilla; a fourth of smaller size from just below the clavicle, and the fifth from the side of the neck about an inch from the clavicle. The patient presents no cachexia. (The specimens were referred to the Committee on Morbid Growths.)

POLYPI FROM THE UTERINE CERVIX.

Exhibited by DR. W. H. PARRISH.

I also present this evening two small growths, each about the size of the last phalanx of the thumb, removed to-day with a wire *ecraseur*. On Christmas eve, I saw for the first time a patient of French birth, a teacher, apparently about 35 years old. When I entered her room she was in a state of syncope from hemorrhage from the genitals. The hemorrhage had however ceased. With the application of hot wet cloths over the front of the chest, and by hypodermic injections of whiskey and aromatic spirits of ammonia, she in a few minutes revived, so as to be able to tell me that she had not menstruated for three months, when suddenly bleeding began from the womb, and continued during the day with an exacerbation just before sending for me. As the patient's condition was

evidently a critical one, I asked the direct question if she had not had, or was not having an abortion. She said it was impossible. I then learned that she was single and 42 years old. A digital examination showed an intact hymen, and a substance in the vagina that at first touch felt very like an embryo of about three months. But I soon recognized that it was a growth attached to the lower part of the cervical canal, and that there was another distending the cervical canal. The latter felt still more like an embryo or ovum, and in fact, in the absence of the one in the vagina, might have at first misled me into thinking that the patient was aborting. Slight traction on it soon showed that it was attached. There was no return of the bleeding, and to-day, with the assistance of Dr. M. O'Hara, I removed both the growths with the wire, and without etherization or the use of a speculum. A remarkable feature of the patient's history is that she had always menstruated scantily, and at intervals of five or six weeks. Never before had she evinced a tendency to uterine hemorrhage. I am confident that the patient was not pregnant. I presume that, being virginal, she is approaching the menopause.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, December, 21st, 1882—President T. L. PAPIN in the Chair.

PRESENTATION OF SPECIMEN—MONSTROSITY.

Dr. Prewitt, in lieu of the regular paper, presented as a specimen a remarkable monstrosity, which was a co-twin with a fully and normally developed child. The doctor remarked that he had not sufficiently examined the specimen to elucidate its exceedingly rudimentary anatomy.

The monster consisted of an ovoid, shapeless mass, covered with integument, from one end of which projected a leg with foot and toes well formed. There was no head, face or arms; the only indications of a head being a patch of dark hair, covering the end of the ovoid mass, opposite the projection of

the leg. There was total absence of cranial bones and of brain substance. In one side of the mass there was a neutral cavity containing rudimentary intestines. The mass also contained traces of osseous material, indicating the partial formation of a vertebral column and pelvis. There was, apparently, no heart or other thoracic viscera. Dr. Prewitt stated that the specimen had been given him by a medical friend, and that he knew little of its history. In this case there was a common placenta with the fully developed twin, and but one amniotic sac. He had learned, also, that the father was syphilitic, and the mother has since manifested syphilitic symptoms.

INTRA-UTERINE MEDICATION—SYPHILIS.

Dr. Papin gave his experience in the management of pregnancy where one or both parents were syphilitic. He stated that he had met with quite a number of such cases, and he believed that much could be done through judicious medication to prevent both miscarriage and the production of syphilitic offspring at maturity. His observation has been that where one or both parents are suffering from active syphilis, the children are either born prematurely, or else the infant comes into the world syphilitic, or develops the disease in a short time. Such children are generally born with pemphigus of the palms of the feet and hands, and they usually die at a very early age. The only method of saving such children is by treating them, while yet *in utero*, through the system of the mother. That the child may be thus acted on, through alteratives administered during the period of pregnancy to the mother, has been abundantly proven, both in his and others' experience. The remedies which he would employ are such as are generally used for constitutional syphilis, viz.: mercury and iodide of potassium, either combined, or alternating one with the other.

As an illustration of the effectiveness of this method of managing such cases, Dr. Papin cited several instances from practice. The *first* case was that of a female who gave birth to two strong, well developed children, both of whom soon died. Finding that there was a history of syphilis, he advised *intra-uterine* treatment, and accordingly during the next preg-

nancy the mother took mercury and iodide of potassium, the result being a healthy child, which so remained at the end of twelve years, during which time it was under observation. At the end of this period the mother went away, and while absent again conceived; during pregnancy she received no specific treatment, and the result was a syphilitic child. Subsequently, still another child was born without treatment, and it was covered at birth with syphilitic pemphigus. The *second* case was that of a woman who had had two still-born children. The doctor then took her in charge, and administered anti-syphilitic treatment, which was continued during the third pregnancy, the result of which was a partially paralyzed child, which soon died. On conceiving for the fourth time, mercury and iodide of potassium were regularly administered, and the child lived. Subsequently to this a number of healthy children were born under similar treatment. Dr. Papin cited a *third* case, in which eight children were born, all alive and healthy; which fact he attributed to the beneficial results of persistent anti-syphilitic remedies administered to the mother during gestation.

Dr. Boisliniere called attention to the apparent latency of syphilis in the father, and also to the non-appearance of the disease in the mother. He was inclined to believe that a mother might give birth to a syphilitic child without manifesting the disease in her own person. Undoubtedly she may be the carrier of virus without being the subject of disease. In proof of this assertion, he cited a case where a lady nursed a variolous husband during the latter part of pregnancy; the child was born with variola, though she had no symptoms of the disease. He mentioned cases parallel to Dr. Papin's, treated in the same way, and with the same gratifying results. The doctor remarked that it would be interesting to inquire how far the father requires treatment. There are cases where the disease is clearly confined to the mother; on the other hand, there are instances where the virus apparently originates with the father, while the mother remains free. The history of these cases should be inquired into as far as possible, and where both parents are infected the safest plan is to treat both; this is especially proper if the father presents any acute symptoms. The proper method of reaching the fetus, how-

ever, is through the circulation of the mother while it is yet *in utero*.

Dr. Coles remarked that it was his observation that the tendency to abortions and still-births as the result of constitutional syphilis in the parents ceased to exist after the lapse of one generation, and that even in the case of purely *tertiary* syphilis the offspring may be healthy without the intervention of specific treatment. He cited the instance of a young lady, the daughter of a widow, who informed him confidentially that she herself had been syphilized by her husband, and that her daughter was the subject of congenital syphilis. This girl, with the exception of the characteristic appearance of the teeth (well marked in her case), presented no symptoms which would have led him to know for a certainty that her disease was congenital rather than acquired, unless it be the extreme severity of the symptoms in one so young—she being only sixteen or seventeen years of age. She was the subject of large nodes on the bones of the shin, forearm and lower maxilla. These nodosities would come and go with the usual symptoms of an old, broken-down tertiary syphilitic. She was always promptly relieved by iodide of potassium, and for years almost lived upon it. But the remarkable part of this girl's history is that she married, and during pregnancy her syphilitic symptoms were unusually active. It so happened, too, that during this time she failed to take her usual anti-syphilitic and tonic treatment; but, to the doctor's surprise, she gave birth to a remarkably fine, healthy child, now several years old, and, so far, free from any apparent taint whatever. Under all the circumstances, he has always regarded this as a rather remarkable case.

Dr. McPheeters said he was satisfied that under judicious management we might nearly always secure healthy living children when either one or both of the parents were known to be syphilitic. He reported the case of a gentleman who had syphilis, and after several years of careful treatment he married and had three healthy children. The fourth child, however, was born syphilitic, but it was begotten about the time the father had a relapse. Subsequently, however, he improved under treatment and had several other healthy children. The doctor stated that he had seen a number of cases where

the parent was undoubtedly syphilitic, and yet under careful treatment the disease had not been transmitted.

Dr. S. G. Moses reported a case of epilepsy in a child, which ended in idiocy, where the parents were syphilitic. The mother of this child was subject to frequent abortions.

Dr. Papin stated that he had no doubt of the correctness of the remarks made by *Dr. Coles*, as he had met with cases corroborating the same facts.

Dr. G. A. Moses presented a cyst which he had recently removed by abdominal section. The doctor stated that he considered it a cyst of the broad ligament. Doctors *Engelmann* and *Coles* were inclined to the belief that the cyst had sprung originally from the ovary.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, June 27, 1882.¹

FIBRO-CYSTIC TUMOR OF UTERUS.

The specimen which I present for your consideration to-night was removed from an abdominal cavity. There is no more difficult field for diagnosis than this cavity presents to the diagnostician. There is no one form of growth more perplexing to the practitioner than this. In the first place it is rare; cases are seldom described in the literature of the profession. It was never discussed until the time of *Cruveilhier*. Its literature does not date back of 1869, when *Koeberle* could only report fourteen cases. *C. C. Lee* as late as 1871 only collected nineteen cases. Other surgeons of wide experience have seen but few cases.

Next, it is interesting in its etiology.

Pean divides cysts into two classes: subperitoneal—real. Cysts may grow enveloped by a layer of uterine tissue, or solid tumors may become cystic. *Klob* says the cavities are formed by dropsical conditions, or by a mucous degeneration

¹ This report of case and account of specimens was accidentally omitted last fall, and is given here, though so late.—ED.

of the connective tissue. Billroth says the tissue is softened, having been diseased by cell infiltration. The softened cyst becomes a secretion or exudation cyst. Sub-serous fibroids break down more frequently than sub-mucous or interstitial ones. Koeberle says the tumors are due to a lymphangiectasis, provoked by neoplasm in lymphatic vessels. The chief mass of the tumor consists of smooth muscular fibers. In a fibrous tumor the lymph spaces dilate to smooth walled cysts, filled with a clear limpid fluid. The process begins in the center of the tumor. These cysts are developed more rapidly in middle life—they seldom occur under thirty years of age.

Thirdly, it is interesting on account of the difficulty in differential diagnosis.

Fibro-cystic tumor of the uterus is the only growth which, after careful examination, may be mistaken for an ovarian tumor, and it is therefore the most important in its diagnostic relations. Baker Brown said there were no distinguishing differences. Even after an incision, Spencer Wells knows no distinguishing feature except appearance of sac. No amount of experience, remarked Atlee, will avail the surgeon in making a differential diagnosis, by ordinary methods of examination, of the several forms of cystic tumors of the abdomen. Apart from the peritoneal cyst, there are none which will puzzle the surgeon more than those which arise from the body of the uterus. Two years since, while in New York, Dr. Emmet invited me to see him perform an ovariectomy, and when abdominal section was made, the tumor proved to be a spongy fibroid of the womb. Three days later Dr. Sims invited me to see him perform the same operation, and his case, after abdominal section, proved to be a fibro-cystic tumor of the uterus. The growth of a fibro-cystic tumor is slow; commencing as a fibroid, it grows four or five years without impairment of health—it produces a displacement of the uterus—the uterus is higher up, it is larger, grows with the tumor—the uterine canal is deeper, there is often a tendency to menorrhagia. The tumor conveys a feel that is expressed as being gelatinous, a variable consistency, an obscure fluctuation. The rectum and bladder may be so pressed upon that they are almost obstructed. These tumors may be very large. Kiwisch described one which filled the whole pelvic cavity, and ex-

tended as high as the ensiform cartilage; it weighed forty-six pounds. Cruveilhier mentions a similar case, and Spencer Wells reports two. These tumors originate usually from the posterior wall of the womb, sometimes from right side of the fundus, and cases are reported originating from the cervix of the womb—the womb seems united to the tumor. Examined per rectum, this connection becomes the more apparent. Koeberle says there is emaciation, which he names *facies uterina*.

After fluid is withdrawn by tapping, the sac only partly collapses, the tumor feels nodular. Pean says sub-peritoneal fibro-cystic tumors contain a serous liquid, bloody serum with more or less pure blood. True fibro-cysts contain a ropy fluid, with pure or scarcely changed pure blood. There is a large number of red blood corpuscles, colorless blood corpuscles, granular cells, opaque flat granules. Other observers have noted very diverse characteristics of the fluid contents. Atlee claims two characteristic peculiarities by which diagnosis can be made. 1st. The liquid coagulates in one solid mass, so that the bottle or test tube can be turned upside down without spilling a drop; the liquid coagulates spontaneously. 2d. There is under the microscope a peculiar, spindle-shaped cell, a fiber cell. He claims, with a number of others, that this spontaneous coagulability is peculiar to the contents of fibro-cysts, while other able observers positively deny this. Hence we must conclude that the absence or presence of this kind of coagulation does not show that it is or is not a fibro-cystic tumor of the uterus. Now in reference to the fiber cell, Atlee was as positive as he was in reference to the discovery of his son-in-law, Drysdale, of an ovarian cell. We know that fibro-cysts of the uterus contain no columnar epithelial cells; but these cysts do not contain any characteristic cell, and it is for our science much to be regretted. This fiber cell, like the ovarian cell, has been full of hope, but more full of disappointment. You all know the history of the latter cell, and the strength with which Drysdale advocated it, and the opinion of other leading surgeons and pathologists.

As with the ovarian cell in an ovarian tumor, so with the fiber cell in a fibro-cystic tumor, Garrigues states the truth when he says there is no reliance on a fiber cell. It may be or not in a fibro-cystic tumor of the uterus, and it may be

found in an ovarian tumor. Are microscopical examinations useless? No. There is no one feature characteristic enough to identify, but all the features blended together make the face, which we are enabled to identify. While I do not believe that there is a single ovariologist who would operate from examination of the fluid alone, yet in obscure cases this is a means of diagnosis not to be neglected. The statement of the contents of a fibro-cystic tumor of the uterus is correctly stated by Garrigues as follows: fluid colorless, yellow, bloody or dark brown, generally coagulates spontaneously and quickly; specific gravity, 1020-1025; has albumen, often fibrine, and sometimes crystals of uric acid, red blood corpuscles, epithelial cells in a state of fatty degeneration, fat globules.

The specimen which I show you this evening has given me the fourth opportunity I have had to examine into the contents and character of sac of the fibro-cystic tumors of the womb, and each one differed from the others in some important particulars. The first case was operated upon under the impression that it would prove to be a cyst of the broad ligament, or an ovarian tumor in its folds, and the mistake was not declared until the abdominal incision was made, when the dark and congested sac of a fibro-cystic tumor was observed; the liquid in this case was entirely colorless, and showed no tendency to spontaneous coagulation.

The second was a person forty-three years of age, of medium height and inclined to corpulency. She had been treated for dropsy of the peritoneum. The growth was immense, the abdomen had the appearance of ascites. She said she had been suffering for years. Upon examination, fluctuation was plainly marked; the growth had an encysted feel, but extended up as high as the ensiform cartilage. The womb was connected with the tumor, and was increased in depth and drawn up. The contents of the cyst had pressed out the wall so as to form an umbilical hernia. The case was decided to be a fibro-cystic tumor of the uterus. Upon examination of the vagina by Sims' speculum, the posterior lip of cervix of uterus had on it a point highly inflamed and protruding. The patient positively refused to allow any surgical means to be used for her relief, even forbidding aspiration. Under the promise of cure from

the physician under whose care she had been previously, I lost sight of her for several months, after which she was admitted to the hospital in a sad condition; the whole surface of the abdomen had been severely blistered; the enlargement at the umbilicus had immensely increased. Three hours after admission the cyst ruptured, evacuating itself externally. The surface of the hernia had been denuded by the blisters. The contents of the cyst were perfectly coagulated, and as they escaped they were just like calf's-foot jelly in consistence. The color was light yellow; the post-mortem showed tumor attached to cervix of womb, the bottom of tract, as noticed before.

The third case was the one Dr. Sims operated upon. The appearance of this tumor was decidedly ovarian, even arched; the cyst had the most decided ovarian feel; the contents were, in character, consistence and color, exactly like an ovarian tumor.

Fourth case. The subject from which this specimen was obtained was Mary C., aged 71; came under my charge April 26th, '82, and gave the following history: Eight weeks previously she was attacked with a severe pain in the lower part and left side of the abdomen; she described it as a colicky pain—had some fever at the time, but only enough to confine her to the house for a few days. She sought relief as soon as she was able to be up, by applying to one of the dispensaries connected with the medical colleges. They gave her some medicine, and recommended the application of leeches to the abdomen. She noticed the hard lump first in her left side, the size of a goose-egg; afterwards the enlargement became general. She has suffered much with difficulty in urination, or rather with scanty urination; her bowels have been very costive; she has lost some flesh. The woman is of more than ordinary intelligence, and is positive in her statements. She is sure there was no tumor there over eight weeks ago; she had previous to that always been a healthy woman. An examination showed there was a tumor the size of an adult head in the upper part; fluctuation was very marked, but the left side of the tumor was longer and seemed more fluctuating than the right. The tumor was behind, to the side of and above the womb; there was an evident depression in the median line, but that both sides were connected was plainly evident. The lower portion of the tumor was hard and immovable, much pressure gave acute

pain; there evidently was a peritoneal tenderness, and strong adhesions—the position and shape of the tumor precluded the idea of an ovarian tumor: the position would lead to the left broad ligament as the location; the rapidity of its growth would point to malignancy. Examination per vaginam revealed the fact that the womb was drawn very high up; the cervix could not be directly felt; the anterior wall was pressed heavily down. Examination per rectum was not made under an anesthetic; but digital examination could not prove whether tumor was or was not connected with womb. The expression of patient had none of the character of malignancy. The placing of the hand on the body of the tumor gave much of the impression of an aneurism; there was a decided pulsation, though nothing could be made out by auscultation—no thrill, no murmur, no lateral expansion. The suddenness of the enlargement, the acute pain rendering an examination almost impossible, the chill and fever at the early stage, pointed strongly to an abscess. The prognosis in this case of course was grave; the adhesions, the peritonitis, the age and condition of patient, all precluded removal by surgical means. The interference with the healthy action of the bowels, the obstruction to the excretion of urine, all these tended to the enfeeblement of the system.

Treatment consisted of digestible and nutritious diet, laxatives, etc. Finally, the tumor increased so as to interfere with and block up the intestinal tract. I then aspirated the tumor, and drew off forty-four ounces of a thin, dark colored liquid, looking like blood serum. There was no tendency whatever to spontaneous coagulation; the odor was decidedly urinous, almost as much so as would be the contents of a hydro-nephrosis. This operation immediately unlocked the bowels, and also relieved the action of the bladder. The chemical examination of this fluid showed it to be loaded with albumen, an obvious admixture of blood, ammoniacal odor, with traces of urea and uric acid. The microscopical examination, as made by Dr. Baumgarten, showed a number of red and white blood corpuscles, a very large number of fat drops, and a small number of small, oval epithelial cells not much larger than the white corpuscles, occasionally found in heaps, mixed with both white and red corpuscles.

The cyst in a space of two weeks filled up again, and was tapped the second time, drawing off a like amount of fluid. She suffered much from edema of left leg and thigh. The general health of patient continued to fail, and on the 26th of May, or precisely one month after admission into hospital, she died. Post-mortem, made by my assistant, Dr. Hall, twelve hours after death, revealed a large tumor, or bilocular cystic tumor, filling the lower part of the abdomen, larger upon left than right side. The walls of tumor were dark; the peritoneum had formed adhesions on every side; the vessels were almost imbedded in the tumor. The upper portion of the bladder had fastened itself to the tumor, and was drawn up with and formed a broad expansion over the anterior portion of the tumor. The womb was drawn up, and the cervix was entirely above and outside of the vagina, the latter forming a mere point. The contents of cysts were different in character, both as regards appearance and consistency. After drawing off the supernatant liquid, the bottom of each cyst was filled with blood clots. No structure existed in them. The cyst wall, as examined by Dr. Luedeking, was non-striated muscular fiber of dense and well matured connective tissue, with here and there fat deposits and fatty degeneration of fiber of the tissue; there was no connective tissue of an early stage of development, no embryonic tissue to give indications of an alteration of a sarcomatous nature.

August 22nd, 1882—DR. KINGSLEY in the Chair.

Dr. Wall read a paper on The Value of Fluid Preparations in Medication (vid. p. 297).

FLUID PREPARATIONS.

Dr. Montgomery.—I fully endorse the paper of Dr. Wall. It is a most excellent paper indeed. I think that we can succeed a great deal better usually by giving the medicine in a fluid form. I don't believe very much in hypodermic injections.

Dr. Leete.—In regard to the fluid extract of *veratrum viride* I would like to ask Dr. Wall if he would think it advisable or safe to give the largest dose mentioned—a dose of from two to three minims—and at what intervals, in ordinary cases in which it would be used.

Dr. Wall.—That depends upon the case. In one of the numbers of the *Obstetrical Journal* there is an article which has not been contradicted—a case of convulsions in obstetric practice, in which teaspoonful doses of the extract of *veratrum viride* were given every fifteen minutes and the convulsions were controlled. I do not think it is unusual to administer as much as two or three minims every two or three hours, according to the case. Of course in such cases it is always well to begin by giving small doses so as to try the patient.

Dr. Leete.—I ask the question because I think it is one of the most dangerous remedies that we use—one of the most disastrous in its effects, if used carelessly. I have seen death result from the careless use of *veratrum viride*. I have heard the mistake made by parties of speaking of the fluid extract when they meant *Norwood's tincture*.

Dr. Montgomery.—I have used *veratrum viride* for twenty years, and I am satisfied that it is not as dangerous a remedy as some persons seem to think. It is not more dangerous than tartar emetic, *jaborandi*, or even *ipecac*. I have never seen any harm result from its use; I consider it a perfectly safe remedy.

Sept. 5th, 1882—*DR. MURD* in the Chair.

SEBACEOUS CYSTS.

Dr. Hardaway.—If there is nothing else before the society I will report a case that possibly I have mentioned to all of the gentlemen present. A sebaceous tumor or cyst on the forehead of a gentleman had existed for some time—I don't recollect exactly how long. He had gone to a surgeon, who very properly suggested that he be allowed to dissect it out; but having some fear of the knife, and not wishing to have a scar, he consulted me. This cyst was at about the point where the pressure of the hat comes. I believe in some European countries they are very frequent at this site from the pressure of the military hat. Upon examination I found that it was quite large. I suppose that I could have gotten a teaspoonful of serum from it. I proposed to him that I be allowed to pass in a needle connected with the negative pole of a galvanic battery, and by electrolysis cause adhesive inflammation and close

the sac from the bottom. I proceeded to do this. I got quite a large needle and passed it in. I found each time that the needle went to a less depth, and finally, after about a dozen sittings, the cyst was completely sealed, and the result was apparently a permanent one. The skin is freely movable over the bone. Of course a surgeon would have accomplished the result with greater rapidity, and perhaps it is desirable to have it complete at once. I simply state it as a possible means of treatment where the patient fears the knife, and for its cosmetic effect, it giving a better result probably. The scar might possibly be only a line, nevertheless there would be some cicatrix after the use of the knife. It has been some four or five months since the operation; long enough to judge of the result.

Dr. Leete.—I saw a similar case some years ago in a gentleman whom I had treated for typhoid fever. He came to me some time after with a growth on the forehead where his hat rested. Upon an examination I told him what it was. I found that it was full of sebaceous matter. I took a needle—such as shoemakers use, I think—a long, slender needle, having, instead of a pricking point, a very blunt one; still it is something that you could thrust into the flesh very easily. I made it a little sore and told him to report back. He came back after awhile, but it was evidently smaller than before. He came two or three times, and there was certainly a disposition toward diminution, and I advised him to continue the treatment himself and not to trouble me any more. He went away, but whether he continued the treatment and succeeded in removing it I don't know. He may not have felt satisfied and have gone to somebody else.

Dr. Montgomery.—I think the best, safest and quickest way to get rid of these cysts is to take a knife and excise them, and there is no danger of the disease returning. In this case of Dr. Hardaway I think there is a great danger of the disease returning.

Dr. Pollak.—I coincide with the views of Dr. Montgomery in regard to these cystic tumors, no matter where they occur. I very often meet with such cases. Where hard enough I enucleate the cyst; and where not solid enough to enable me to do that I rupture it, and irritate it with nitrate of silver to

produce suppurative irritation, which follows in about two days, and the whole cyst comes away. I never leave the cyst behind. It is only a few days ago that I saw a patient who had been troubled for some time with two immense growths on the upper lip and one on the lower lip. He had used a good many remedies and they had all failed. Those on the upper lip were solid, but that on the lower lip was not so solid. I couldn't get it out easily, and the nitrate of silver had to be used. It came out entirely, however.

OVARIAN CYST.

In this connection I would like to say a few words that I had hoped to say not long since in connection with the reading of a paper before this society on the value of tests in the diagnosis of tumors by an examination of their contents—tests to determine whether the tumor is a simple ovarian cyst or a cyst of the broad ligament. In June last I was called in to see a patient who had been suffering for some months with a tumor which, upon examination and inquiry into the history of the case, I concluded was an ovarian tumor; the diagnosis, however, was not very positive, and I so stated to the doctor in attendance. I was not quite sure. The patient was anxious to ascertain definitely her condition. I told her what I thought, and that I could determine more positively the character of the tumor if I could get some of the fluid and examine it. This tumor was smooth in its outline, fitted snugly to the abdominal wall and was not adherent to it. There was no history of previous inflammation. The patient was in an emaciated condition; the emaciation was so marked that I thought this tumor might be something more than a simple cyst. The depression of vital powers was so marked that I thought it might be a malignant tumor. I made very carefully a puncture with an aspirating needle, using one of the smaller needles—one not more than an eighth of an inch in diameter. I inserted the needle between the umbilicus and the pubes, and immediately upon puncturing the part some of the fluid from the tense sac dozed out around the needle. I drew off perhaps eight or ten ounces, and after drawing off that much I observed that there was a depression around the needle, so marked that I thought I had struck a small cyst and evacuated its contents. This I was

glad to observe, as I thought it was safer to puncture a small cyst than a larger one. Upon withdrawing the aspirator I placed a compress over puncture, and put the patient to bed. She had been sitting on the bed at the time. We then left instructions to use an anodyne solution if necessary, and told them to let us know if anything unusual occurred. I heard nothing until 26 hours after the aspiration, when I was sent for, and found the patient in a collapsed condition and suffering very much; her pulse was almost imperceptible. She died from a diffuse peritonitis seven days after aspiration; and we found at the post-mortem examination that she had a simple cyst of the ovary with a good pedicle. Every condition was favorable to an operation. If I had been called to the patient a few hours after the aspiration, I think I should have operated—that is, if I had been called to her two or three hours after the aspiration and found an indication of the coming condition, I should have felt justified in opening the abdominal cavity at that time and removing the cyst. I think it would have increased the patient's chances of recovery. It is a matter of observation that by opening the cavity of the abdomen and removing offensive matter extruded from ruptured tumors the chances of recovery are increased. The fluid which was removed was examined. I don't know the particulars of the report, but it indicated the ovarian cyst. It answered the test.

HYPODERMIC INJECTION OF COLD WATER.

Dr. Pollak.—I wish to report a case of sciatica that was relieved by an injection of cold water. I have suffered every summer from sciatica, which the ordinary remedies would not cure permanently. I saw in some journal that cold water—hypodermic injections—would cure this complaint. I had been suffering for some time, but I didn't like to use morphine until I was obliged, so that it occurred to me to use this remedy. I took from 10 to 16 drops of cold water and injected it, and it worked like a charm. I have had no attack since.

Dr. Love.—I had a case some ten or twelve months ago of persistent neuralgia, which I cured in the same way. I had been giving this woman morphine, and I began to fear that it would become a habit for her to take it, so I determined to

stop it at once. She had been taking it three times a day, and she suffered intolerable agony unless it was given. I substituted cold water, and it gave marked relief. I gave it three times a day at first, and then reduced it to twice a day and then to once a day. I remember that we used quinine at the city hospital as a substitute for morphine in some cases, and it seemed to have the same effect.

CORRECTION.

In the January number, page 94, at the close of Dr. Bryson's remarks at the Medico-Chirurgical Society, he should be reported as saying that some cases have been reported by Langenbuch in which he placed a drainage tube in the bladder after removing a large calculus by the supra-pubic operation. That the patients operated upon being children were required to lie upon their faces, and that the results were good.

BRITISH MEDICAL JOURNAL FOR 1883.—The new volume will be the first volume of the second half-century of the publications of the British Medical Association. During the last fifteen years it has risen in circulation from two thousand to eleven thousand—a circulation never before attained by any weekly medical journal—and the size and contents of the *Journal* have been more than trebled without any addition to the annual subscription price.

THE ST. JOSEPH MEDICAL HERALD, Vol. I., No. I., successor to the *Missouri Valley Medical Journal*, published in St. Joe, retains upon its editorial staff Dr. F. C. Hoyt, to whom must be ascribed much of the reputation attained by its predecessor. The profession can hardly have too many first-class, ably conducted journals, and the new *Herald* has our best wishes for its success in reaching that standing which the most conscientious and ambitious editor can desire.

COMMUNICATIONS.

HEALTH DEPARTMENT, CITY OF ST. LOUIS.
FEMALE HOSPITAL, Jan. 22nd, 1883.

MR. EDITOR: The following report of a case of belladonna poisoning, occurring in this institution, may be worthy of publication; if so, it is at your disposal.

A child of one of the patients, aged nineteen months, in playing about the wards obtained possession of a bottle, carelessly left standing on a table by the nurse, containing the pure and simple tinct. belladonnæ, and child-like drank part of it.

The bottle contained about an ounce of the tincture, and when we saw it there was only about one drachm left. How much was swallowed we cannot say, as the mother stated the child could not have had the bottle longer than a few seconds, and in taking it away from him she spilled some of the contents. The child shortly after taking the drug, which was about 7 P. M., vomited quite freely. The nurse, feeling considerably blameworthy, and thinking that in vomiting so short a time after taking it all danger was past, did not report the occurrence to us on our evening visit. We were hastily summoned to see the little patient at 11 P. M. After hearing the history, and lamentations of the nurse for her carelessness, an examination of the child revealed nothing to attract attention but a slight degree of restlessness and increase of heart's action. There was at this time, four hours after taking the drug, no redness of skin or dilatation of pupil. Reasoning that the patient had vomited freely, and that four hours had elapsed and nothing of importance had developed, we thought there was little if any danger. Ordering a warm mustard bath, and ʒij of castor oil, we left our patient, directing the nurse to call us if anything should develop. At 1 A. M. we were called again, and the sight which met our gaze was of a decidedly different character. Our little patient lay upon the bed with a hot, red

skin, pupils in a state of extreme dilatation, and the ocular muscles and muscles of the entire body undergoing clonic contraction. The heart's action was tumultuous, respiration short and jerking, mouth and tongue dry and hot, priapism in a marked degree; the least touch would send a thrill of spasm through him. The contractions would subside for a moment, and then return with all their force, reminding us of a bird struggling in the hands of its captor. The mental faculties did not seem to be much interfered with, except the appearance of fright the child had. On account of the condition of the patient it was impossible to take the pulse or temperature.

Thinking the case a foregone conclusion as to result, but also believing it an excellent one to demonstrate the antagonistic power of opium, we commenced to administer $\frac{1}{32}$ grain of sulp. morphia. This was repeated every twenty minutes; four doses were given— $\frac{1}{8}$ gr. all told. After the third dose some symptoms of sleep were manifested; in fifteen minutes after the fourth our little sufferer was calmly reposing in the "arms of Morpheus," and slept quietly until six the next morning, when he got up as usual and went at his play. The interesting features of the case are: the length of time before the belladonna produced its effect; the severity of its action; the length of time the morphia was in acting, and the beauty of its action; also the condition of the child the next morning.

Respectfully yours,

GEO. F. HULBERT.

CORRESPONDENT.—If the gentleman who sent us a communication from Moberly will send us his name, accidentally omitted from the manuscript, we shall be glad to publish it.

ST. LOUIS MEDICAL SOCIETY.—At the annual meeting on the first Saturday evening of January the following officers were elected: W. L. Barret, M. D., President; G. F. Dudley, M. D., Vice-President; A. H. Ohmann-Dumesnil, M. D., Recording Secretary; Garland Hunt, M. D., Corresponding Secretary; W. E. Fischel, M. D., Treasurer.

SELECTIONS.

THE UNDULATORY THEORY OF ODORS.

The immortal Newton, in common with other savants of his time, believed that light consisted of minute particles emitted from luminous bodies and traveling through space with immense rapidity till they reached the eye. This theory, known as the corpuscular theory of light, has since been almost entirely abandoned by scientific men in favor of the "undulatory theory," so ably advocated by Huyghens, and perfected by Young, Fresnel, Cauchy, and others. When Crookes succeeded in weighing a sunbeam, the corpuscular theory was supposed to have received a fresh lease of life, as better able to explain the action of the radiometer. But the disciples of the undulatory theory soon rallied from the blow, and, notwithstanding the difficulty of conceiving of an imponderable ether, omnipresent and persistent, the undulatory theory still prevails. Not only light, but heat, is now explained on the kinetic theory, which has motion for its basis.

Notwithstanding the success that has attended the application of the undulatory theory to the varied phenomena of heat, light and electricity, chemists and physicians still adhere to the corpuscular theory of smell, and teach that odor is due to small particles thrown out from the odoriferous body. A phenomenon that goes far to disprove this assumption is seized on by chemists to illustrate the smallness of the molecule, and by physicists to prove the (almost) infinite divisibility of matter. A few grains of musk will impart a strong odor to the air of a room for years without suffering any appreciable loss of weight. Other instances of non-volatile substances possessing a remarkably strong odor might be cited; a familiar example of a powerful and penetrating odor from a liquid with high boiling point, and of very slight volatility, is found in carbolic acid, the loss of volume by evaporation being entirely

out of proportion to the odor. On the other hand, the fact that many volatile liquids are odoriferous does not prove that it is the particles of liquid or vapor which, coming in contact with the organs of smell, produce the well-known phenomena, for there are volatile substances innumerable which have little or no odor. The elementary gases, with the exception of chlorine, are without odor, and many of the compound gases, such as nitrous oxide and carbon dioxide, are void of odor when pure.

Dr. W. Ramsey, of England, has recently called attention to the fact that the lower the specific gravity of a gas the less odor it has, and this we find confirmed in the case of elementary gases by chlorine, which alone is odorous, while its specific gravity (35.5) is more than double that of oxygen (16) or nitrogen (14).

One of the most remarkable phenomena of light, excepting polarization, is that known as "interference." It was impossible to explain this satisfactorily on the corpuscular theory, while it was easily accomplished on the undulatory theory. Sound, which is due to vibrations of the air so large as to be easily observed, does not afford such striking examples of interference as seen in the case of light, yet a delicate ear has no difficulty in detecting such interference in many of the commonest affairs in life, such as two clocks ticking, the interference between musical notes, etc.

If smell depends on vibrations of any sort, it must be possible to detect cases, however rare, of interference. There are familiar instances where one strong odor masks and conceals another, as also of substances of unlike odors combining chemically to produce odorless ones, but it is doubtful if these are true cases of interference. The observation recently made that quinine destroys the odor of musk deserves a closer study to determine whether this is not due to interference, just as red and green light produce white. We do not even know as yet whether odorless substances owe this property to absence of vibrations, or, as in the case of light, to vibrations too long or too short to be taken cognizance of by our olfactory nerves. It is well known that light-waves shorter than the violet or longer than the red produce, on the optic nerve, the sensation of darkness. The range of the eye

is scarcely one octave, while the ear distinguishes sounds produced by waves from a few inches to several feet in length, including several octaves. What length of waves are able to affect the olfactory nerves we are not yet able to determine, nor do we know whether disagreeable smells are caused by undulations of greater velocity than pleasant ones, or the reverse. It is probable that each odor consists of several separate and elementary notes; that when these are harmoniously combined the result is agreeable, and that vile odors are simply the result of discord.

One fact may be of use in the study of the undulatory theory of odors: that sunlight causes sneezing, even in the blind, while certain odors produce a like effect.

The difficulty in the way of investigating the subject of smells is the lack of any instrument for measuring odors, all depending as yet on unreliable senses, and all observations being subject to a very large discount for "personal error." When a spectroscope for analyzing odors shall have been invented, it is not unlikely that we shall find certain lines corresponding to certain elements, each being so modified by the other elements in the compound that it is not possible to distinguish it in the general effect on the olfactories. However this may be, it is probable that nitrogen, arsenic and phosphorus (pentads all), as well as sulphur and selenium, will be found to possess some peculiar modifying power over the others. Perhaps it will be found that simple bodies vibrate only in one plane, like polarized light, but not all in the same plane; that when two elements vibrating in different planes combine, the resulting vibration, being the resultant of two forces, differs from both of them, and hence the odor of the compound differs from that of each constituent. One of the most remarkable and familiar cases of this sort is where odorless nitrogen and hydrogen combine to form ammonia gas, (NH_3) with its penetrating odor, which is, nevertheless, so easily destroyed by combination with more hydrogen, and an equal volume of chlorine (HCl).

What effect the shape of the chemical molecule may have on the odor is evident from the fact that all ring-shaped hydrocarbons, like benzole and the double and triple ringed naphthaline and anthracene, are called "aromatic," from their charac-

teristic and remarkable odors. The chain compounds, like the paraffines, have less characteristic odors; but of either class, the greater the number of atoms in the molecule the stronger the odor; yet isomeric bodies often differ in odor, proving still more conclusively that the *shape* of the molecule affects the smell, probably by changing the plane of vibration.

Perhaps we are in advance of the times; the age is not yet ripe to accept the undulatory theory of smell, but the day is not so far distant when discoveries will be made that will establish and sustain our views.—E. J. H.—*Scientific American*, December 30th, 1882.

MORTALITY IN TOWN AND COUNTRY.

Professor Finkelnburg attempted to show, in a paper read at the recent Sanitary Congress in Cologne, that cities are not of necessity less healthy than country districts, and that, where they appear to be so, the fact can generally be attributed to local influences affecting the hygienic or economical condition of the population.

The analysis and comparison of adult male and female mortality and infant mortality bring out many interesting facts. The male population of the cities is described as being less healthy than the female population, and liable to consumption and affections of the heart, brain and kidneys. In Cologne, the mortality among women over thirty years of age is not only less than among men, but is less than the death-rate among women of the same age in other parts of the Cologne district. Similar results are shown at Bonn. The deaths of men from consumption show a marked predominance in the centers of textile and metal industries. The fact that a similar result appears in country districts where labor of a similar character is carried on is presumptive evidence that the mortality is associated with the industrial activity of the towns.

Epidemic diseases seem to show an excessive urban mortality only in the case of young children. Infant mortality appears to reach its highest point where the population is most dense, and the proportion of female labor in the factories is most

considerable. A more favorable condition, however, seems to prevail in those districts where domestic labor is general. It is proved with a certain amount of clearness that infant mortality varies according to the dwelling accommodation in towns and the amount of parental care which circumstances permit.

This result is not a sure guide as to all diseases, for while diarrhea and similar disorders contribute a notable proportion to urban mortality in general, deaths from diphtheria and whooping cough in the Rhine provinces are more numerous in the country than in the towns.

Professor Finkelnburg also notices that the mortality in cities increases in the summer and fall, while the increase in the country takes place during the winter and spring.—*Popular Science Monthly*, Jan., 1883.

ASS'S MILK FOR INFANTS.

M. Parrot, physician at the Hospital for Assisted Children in Paris, has recently made a report of the success which has attended the efforts he has made to introduce an improved system of alimentation into the nursery of that institution. His conclusions, confirmed as they are by the observations of his colleague, M. Tarnier, who had the charge of an important class of young nurses, deserve the particular attention of hospital and municipal administrations. Good nurses are very scarce, and it is hard to keep a strict watch upon the children consigned by the public charities to their care. On the other hand, a goodly number of these poor little ones come into the world afflicted with diseases which forbid their being committed to a nurse, because they would be in danger of infecting her. At the Children's Hospital, where the proportion of these wretched infants is always considerable, it has been found necessary to feed them from the bottle in the halls of the infirmary. Notwithstanding the most intelligent care, this means has not been efficient to restore the strength of the infants, who were, in fact, nearly moribund with disease

contracted in their mother's womb. M. Parrot had a single chance to save them and tried it; it was to nurse them directly at the teat of an animal. The nursery which has been established in the gardens of the Hospital for Assisted Children has been in operation for about a year, and the results of the experiments have been so satisfactory that no reason exists for waiting for a longer trial before making them known. In the face of the preliminary difficulties in personal instruction, and the insufficient number of animals at the disposal of the hospital, the rate of mortality has been greatly reduced. The infants were at first fed with goat's milk, but it was soon found that ass's milk was better for them; and they are now all fed with milk that they draw directly from the teat of the animal. One, two, and sometimes three children are presented to the ass at the same time, being held at the teat in the arms of the nurse, and the operation is performed with wonderful ease. Numbers speak most eloquently of the success of the method. During six months, eighty-six children afflicted with congenital and contagious diseases were fed at the nursery. The first six were fed, by stress of particular circumstances, with cow's milk from the bottle; only one of them recovered. Forty-two were nursed at the teat of the goat; eight recovered, thirty-four died. Thirty-eight were nursed at the teat of the ass; twenty-eight recovered, ten died. In the face of such results there can be hardly any hesitation in declaring that in hospitals, at least, the best method of feeding new-born children, who cannot, for any reason, be confided to a nurse, is to put them to suck directly from the teat of an ass. The virtues of ass's milk have not waited for recognition till this late day. Paris and other large cities have, for many years, enjoyed the visits of troops of asses, which have been brought to supply the restorative liquid to the sick and feeble. If we may credit the legend, the use of this milk was introduced into France during the reign of Francis I. That brave monarch had fallen into a state of extreme exhaustion in consequence of his over-exertion in military and other exercises. His physicians not being able to produce any change in his condition, a Jew was brought from Constantinople, who prescribed simply a beverage of ass's milk; he took it, according to the chronicle, and became better. Ass's milk owes the advantages which it

possesses over that of goats to its chemical composition, the distinguishing feature of which is that it contains less plastic substance and butter than goat's milk. Like mother's milk, it forms a precipitate of little isolated flakes easily soluble in an excess of gastric juice. It does not load the stomach of the sickly and puny infants, who ought to be spared all possible difficulty in digestion. Mare's milk would be, if it were easy to get, a still better substitute for mother's milk. It has nearly the same composition, and M. Berling, a Russian physician who has tried it, has found in it all the qualities necessary to sustain new-born children.—*Popular Science Monthly*, Jan., 1883.

WHAT THE PHYSICIAN OF THE FUTURE MUST STUDY.

Physiology especially has developed during the last fifty years, so that it has almost become a science by itself, but it still remains a part of the wider science of biology. Here again we see a difference between the studies of the ancient and modern physician. To-day, and still more in the near future, the physician must extend his studies beyond man, and the reason is plain. Man, with whom alone the physician formerly supposed himself concerned, is but an isolated being disconnected from the rest of nature. Nature tolerates no such isolation. No living being, even the simplest, exists, or can exist, independently of other beings. It affects them and is affected by them, and what is true of the simplest is yet more true of the more complex, and most of all of man. Nature is one, and all her creatures are parts of the whole. For this reason man cannot be fully known merely as man, he must also be known as a part of the animal kingdom. No one can well understand human anatomy or physiology who knows nothing of that of the lower animals. Comparative anatomy and physiology have thrown very much light upon many obscure problems to which the study of man gave rise. Therefore, I would most earnestly urge upon all medical men the study of biology. It may be replied that the courses of study are now crowded, but it is certain that the successful physi-

cian of the future *must* know something of nature as a whole. Already many of our most important theories as to disease—the structure of organs, cell growth, cell-life, and many more—have come to medicine from biology. In an address before the International Medical Congress, held in London in August, 1881, Professor Huxley remarks that “the search for the explanation of diseased states in modified cell-life, the discovery of the important part played by parasitic organisms in the etiology of disease, the elucidation of the action of medicaments by the methods of experimental physiology, appear to me to be the greatest steps which have ever been made toward the establishment of medicine on a scientific basis. I need hardly say, they could not have been made except for the advance of normal biology. There can be no question, then, as to the connection between medicine and biological science. There can be no doubt that the future of pathology, of therapeutics, and therefore of practical medicine, depends upon the extent to which those who occupy themselves with these subjects are trained in the methods and impregnated with the fundamental truths of biology. And I venture to suggest that the collective sagacity of this congress could occupy itself with no more important question than this: How is medical education to be arranged, so that, without entangling the student in those details of the systematist which are valueless to him, he may be enabled to obtain a firm grasp of the great truths respecting animal and vegetable life, without which, notwithstanding all the progress of scientific medicine, he will find himself an empiric?”—PROF. GEORGE H. PERKINS, in *Popular Science Monthly* for September.

SECOND EDITION.—It is not often that it is necessary for a medical journal to issue a second edition of any number; but the subscriptions for the COURIER have come in so rapidly this month that we have been obliged to print a new edition of 1,000 copies of the January number, and shall make that addition to the number heretofore printed of each issue.

NOTES AND ITEMS.

MEDICAL LECTURES FOR RAILROAD MEN.—A series of lectures is now in progress in New York, being given in the reading room of the Grand Central Depot, for the purpose of instructing the railroad employees what to do in cases of emergency, and how to handle and care for injured persons. The lectures are to be given one each week, and are given in a thoroughly practical manner, being largely in the form of demonstrations.

MEDICAL WEEKLY REVIEW.—For three years past one of the sprightliest, brightest exchanges upon our table has been the *Chicago Medical Review*. This journal has changed hands, and will be issued after February 1st simultaneously from Chicago and St. Louis, by Jas. H. Chambers & Co., publishers, who have houses in both those cities. As indicated by the name the journal will be changed from a semi-monthly to a weekly. An able corps of editors has been secured in each of the two cities, and the *Review* will represent the professional interests of both. The *Weekly Review* and *COURIER* being published by the same house will have no antagonistic interests, and the editorial conduct of the two journals will be in perfect harmony. Club rates will be made for those taking both journals together, and we recommend our readers to subscribe for the weekly with the *COURIER*.

Business connected with the arrangements for the management of the *Review* necessitated an editorial visit to Chicago, where a day was spent very pleasantly in consultation with the Chicago editors of that journal. We made the trip by a route new to us, the Chicago and St. Louis division of the Wabash, and our hearty thanks are returned to the officers of that road for courtesies extended to us on that trip. The run was made with promptness and despatch, and with great comfort, in the smooth-running, handsomely finished coaches and sleepers of that admirably managed road.

PROFESSIONAL BIGOTRY.—Dr. R. O. Beard, in discussing the "Schools of Medicine," says:

Nothing is so popular as prejudice, and no prejudice so popular as that resting upon a supposed scientific basis, or backed by reputed scientific authority. Always obstructive to the spirit of progress, it is peculiarly so when related to a subject so closely concerning the interest of the people as the study and treatment of disease. In these physically degenerate days the avoidance or remedy of the thousand "ills which flesh is heir to" is a question of well-nigh universal import. The urgency of this common need offers a partial reason for the adoption and perpetuation, by the public mind, of the differences which are supposed to exist between the two great schools of medicine; while, at the same time, it measures the greatness of the misfortune of the fact.

Rooted in the professional ignorance and bigotry of almost a century ago, fostered by the bitter rivalries and exclusivism of opposing theorists, these differences have been taken up and fed by popular opinion, until they seriously embarrass the progress of medical knowledge, and tend to destroy all faith in the science and art of healing.

The medical fraternity at large, and of both schools alike, is responsible for this unfortunate condition of affairs. When professional men, who, supposably, represent the best phases of liberal thought and scientific culture, lend their names to the partisanship of mere theory, and array themselves under sectarian titles which signify their adherence to an exclusive dogma, it is small wonder that the laity should follow in their footsteps, and cast their views into the yet narrower mold of unreasoning prejudice.

And, as professional hands have sown this seed of error, it is they who must gather its barren harvest, and uproot the tares of false opinion from the popular mind.—*Popular Science Monthly*, Feb., 1883.

DR. M. A. PALLER, Professor of Gynecology in the New York Post-Graduate school, has resigned his chair, and it will now be filled by Dr. B. F. Dawson, recently appointed to that position.

OBITUARY.

SIR THOMAS WATSON, BART.

The entire medical profession sustained a great loss in the death of this eminent man, which occurred December 11, 1882. Thomas Watson was born in Devonshire, in 1792. His early education was acquired at Bury St. Edmond's School, from which he entered Cambridge, graduating in 1815, tenth in the list of wranglers. He was elected Fellow of his college in the following year, and became M. A. in 1818. His Fellowship was retained until his marriage in 1825. For some years after he settled in London practice came slowly, and the pay was small and uncertain, leaving him at no time during these years free from pecuniary cares and anxieties. In September, 1830, he was called upon to endure the affliction of losing his wife, who died three days after the birth of their second child. In the opening of the medical school of King's College, in the autumn of 1831, Dr. Watson was appointed Professor of Forensic Medicine, and made at this time his first contribution to medical literature upon "The Phenomena of Death by Strangulation." In 1836 Dr. Watson was appointed Professor of Medicine at King's College, which chair he retained until 1840, leaving it in order to retain his office as physician to Middlesex Hospital.

The resignation of his professorship, which was felt to be a calamity, led to the publication of his admirable lectures on the "Principles and Practice of Physic," a work of great value to the entire profession. These lectures were first published from week to week in the *Medical Gazette*, the first one appearing in 1840 and the last in 1842.

The publication of these admirable lectures greatly increased the reputation of their author, acquiring for him the well-merited title of "The Cicero of English Medicine," and led at once to a large extension of his practice. His book probably had a larger sale than any similar work ever published, and an incident of his publisher's liberality is of general interest in this connection.

According to their agreement, the author and publisher were to share the profits between them. One day Mr. Parker called to see him, and informing him that the sale of his lectures had been so unprecedented that the author's share of the profits was in his opinion too small, insisted upon his taking *two-thirds* of the profits, while the publisher retained one-third. Practically illustrating his generous intentions, he handed the author a check for twelve hundred pounds.

In the College of Physicians Dr. Watson held numerous offices, finally being elected President in 1862, which office he held for five successive years, declining a re-election on the sixth, on the plea of advancing years.

In 1859, Dr. Watson was appointed Physician Extraordinary to the Queen, and in 1870, Physician in Ordinary. In 1861, in company with other distinguished physicians, he attended the Prince Consort until the death of the latter in December. In 1866, Dr. Watson was created a baronet, the honor having been offered him by the express desire of the Queen. Honors crowded upon him in the remaining years of his life, societies and corporations vying with each other in the laudable desire to do honor to the distinguished physician.

During the last ten or twelve years of his life he retired from the active practice of his profession, but, to the end retained his interest in all that concerned it.

The approach of his last illness was heralded by a sudden, slight paralysis of the left side of the foot and tongue, but his mental faculties and power of speech remained unimpaired. That he realized his condition is evident from a remark to his old pupil and friend Dr. George Johnson, to whom he calmly said: "This is the beginning of the end." Within a week, after slight exertion in walking across the room, he was suddenly seized with difficulty of breathing, his face became blue, and he was thought to be dying. There appeared to be some sudden failure of the heart's action, but in the course of an hour or two the distress passed off. Though up to this time he had been dressed daily and had gone down stairs, from that day he did not leave his room, and could rarely be moved from his bed. Weakness, pain and distressing restlessness were constant through the subsequent weeks, in which time a little milk with a small quantity of brandy was all the nourishment

that could be taken. Weakness and emaciation with falling temperature steadily increased, yet he retained his consciousness up to the last two days of his life, although his power of speech was latterly much impaired. It is believed he understood and was gratified by a kind message of inquiry and sympathy from the Queen. He was often soothed by the reading of a prayer or hymn. At length he sank into a slumber, and so on December 11, near midnight, came the final rest for which he had longed and prayed. Perhaps there is no more appropriate way of expressing the universal sentiment toward him, than by quoting his own words with reference to an old and beloved friend: "Ripe in years as he was, and ready in spirit for the solemn change, his death must long be the subject of tender and sacred regret among the nearest and dearest of his surviving family and friends; nor will his memory soon cease to be reverently cherished throughout a much wider circle."

ANNALS OF ANATOMY AND SURGERY.—Among the choicest and always most gladly welcomed of our exchanges is the *Annals of Anatomy and Surgery*, the only journal in the English language which is devoted solely to surgery and to anatomy as related to surgery, a field which is well cultivated in the French by the *Revue de Chirurgie*, in the German by "*Langenbeck's Archives*," "*Volkmann's Clinical Lectures*," "*Central-blatt*" and "*Zeitschrift für Chirurgie*."

The *Annals* was established as an exponent of the work of the Brooklyn Anatomical and Surgical Society, and has been carried on under their management for three years; but now, in order that it may not be even apparently the organ of one society, they have relinquished their special interest in it, and it will hereafter be under the independent control of the editors who have made it so successful, without any supervision from or dependence upon the society.

Dr. Roswell Park, of Chicago, is added to the list of associate editors for this year, and the names of contributors who have promised articles for the *Annals* during the coming year warrant the promise that its pages will be full of interest and profit. Great credit is due to the editors, Drs. Lewis S. Pilcher and Geo. R. Fowler, for the excellent work which they have done on the journal thus far, and we congratulate them most heartily on the success attained and the brilliant prospects that are before them.

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ORIGINAL ARTICLES.

VERTIGO AND DISTURBANCE OF EQUILIBRATION—THEIR DIAGNOSTIC IMPORTANCE IN THE RECOGNITION AND DIFFERENTIAL DIAGNOSIS OF AFFECTIONS OF THE INTERNAL EAR.

BY ROBT. SATTLER, M.D., CINCINNATI.

[*Read before the Association of Ex-Internes of the Cincinnati Hospital, Dec. 27, 1882.*]

THE prominence of vertigo as a concomitant and symptom of disease of the cerebro-spinal system, circulatory apparatus, and of a variety of pathological processes attended by general exhaustion and anemia, accords to it a rank of importance.

It is, however, only one phase of giddiness which it is the purpose of this paper to consider, and it refers to that infrequent variety which is the direct or indirect result of a physiological disturbance or disease of the internal ear.

It may be of primary origin or due to definite pathological alterations of the various parts of the internal ear—

vestibule or semi-circular canals (Menière's disease, syphilis, etc.); or secondary, and the result of cerebral or cerebellar lesions (tumors, cerebro-spinal meningitis, etc.); and in other instances it is reflex or dependent upon sympathetic or vaso-motor disturbances in remote parts of the body (lesions of stomach and gastro-intestinal apparatus, traumatic disturbances of the brachial plexus of nerves, etc.); or it may also result from an extension of acute and chronic affections of the middle ear, rupture and perforation of the membrana tympani, firmly impacted masses of cerumen or foreign bodies in the external auditory canal. Having so many causes and dependencies in the ear, the giddiness must vary in degree and duration. It may occur alone and give rise to a brief discomfort and disturbance; or it may be associated with and accompanied by most marked general prostration, persistent tinnitus, great anxiety, nausea and vomiting, difficulty of equilibration, and partial or complete abolition of hearing power. The attack may only last a few minutes, or continue several hours. The patient almost in every instance remains perfectly conscious during the attack, and after the paroxysm experiences marked evidences of exhaustion and complains of the persistence of tinnitus and vertigo, and of more or less difficulty in locomotion, and of a greater or less degree of deafness.

In that rare form of disease of the internal ear known as Menière's disease, or more correctly as apoplectiform deafness, the giddiness is often so pronounced that the patient falls to the ground; or if the attack occurs in the recumbent position, he grasps and frantically holds on to the sides of the bed, to at least soothe his disordered and fear stricken mind, even though he knows that his attempts to counteract the violent rotatory and swinging movements are vain and futile.

One attack may suffice to annihilate the function of the ear. In other instances several attacks occur of varying intensity and duration, but with the inevitable termination of

complete or partial permanent deafness, and more or less tinnitus, vertigo and disturbance of co-ordination for some time afterwards.

Primary lesions of the internal ear are fortunately rare, but they are doubtless more frequent than is supposed, as they present in almost every instance a negative complex of symptoms which can only receive a correct interpretation and intelligent recognition by a careful differential analysis.

The following summary of a case illustrates one form of apoplectiform deafness, where the pathological alteration had its seat in the internal ear:

J. H., a man of solid muscular development, with no hereditary tendency to ear or brain disease, and free from congenital or acquired syphilis, was attacked in October, 1876, with acute rheumatism, prostration and slight catarrhal disturbance. He recovered and resumed his work in January, 1877. In June, 1877, he noticed disturbance of his hearing with tinnitus aurium and paroxysms of giddiness. Headache was absent, and his chief complaint was a feeling of discomfort along the occipital region. The giddiness increased, and decided unsteadiness of gait was added; this was especially pronounced at night, and even at this time he experienced difficulty in walking in the dark without support or assistance. Persistent nausea was also present, but no vomiting.

Towards the end of June, 1877, the giddiness became so pronounced and constant, the power of equilibration so disturbed, and the prostration so great, that he was obliged to take to his bed. He could stand or walk only with assistance, and not at all with his eyes closed or in the dark. The tactile sense of the lower extremities was never impaired.

The vertigo he compared to the feeling of motion after a long and rough sea voyage; at times it would without any evident exciting cause become more violent, so that he was obliged to hold on to the bed. He never experienced

the feeling as if his head and body revolved around a horizontal or vertical axis, and he never fell to the ground, and he was never unconscious.

In October, 1877, he was totally deaf. He could not, as he expresses himself, hear the loudest sound of his own voice.

The tinnitus and vertigo continued long after he had regained a more perfect co-ordination of his muscular movements. Toward the end of October he could walk alone or by the aid of a cane; but on a dark night and in a dark room he still has considerable difficulty.

The examination of the membrana tympani and middle ear is negative. Eustachian tubes open. II=0.

In this case the giddiness and disturbed powers of equilibration were among the chief and most annoying symptoms to the patient; the deafness, though rapidly progressive and fatal, did not alarm or annoy him at the time as much as the above mentioned symptoms, and it was a most sad and alarming discovery to emerge from his illness hopelessly deaf.

In another case of tumor of the cerebellum in a young, well developed girl, tinnitus and giddiness were among the most prominent and annoying symptoms. She also had optic neuritis, and toward the last complete abolition of vision, so that one could not estimate how much of her disturbed equilibration depended upon the cerebellar lesion, how much upon the visual, and how much upon the lesion of the internal ear.

Her hearing was greatly impaired and subject to great variation, so that at times she was almost completely deaf. This patient, however, retained useful hearing up to the time of her death, but complained severely, until she succumbed to the cerebellar lesion of vertigo and tinnitus.

When the affection of the internal ear is secondary to a disease of the middle ear, and due to an extension of chronic catarrhal or chronic purulent processes, or to pressure from a tumor or syphilitic disease, giddiness and

disturbed equilibration are not generally among the more pronounced symptoms, and deafness often assuming an apoplectiform character is a more prominent and more alarming symptom.

A little strumous patient (E. T.) lost completely the hearing power of her right ear during early childhood, probably the result of a disease of the internal ear.

She suffered for many months from catarrhal inflammation of the pharynx and chronic catarrhal otitis media, with accumulation of mucus in the tympanic cavity. She improved greatly under treatment and regained useful hearing. She was discharged, as the treatment had accomplished all that could be expected. Ten weeks after her discharge, or ten days ago, she suffered from a severe catarrhal attack and became suddenly and completely deaf. She did not complain of tinnitus nor of giddiness, and was in a most cheerful frame of mind.

The only observation made by her mother was a slight unsteadiness of gait and tendency to stumble. In other respects the child was in excellent health and spirits. The catarrhal attack has completely disappeared, but the total and fatal deafness remains.

I mention another case, also of unmistakable extension of a middle ear affection to the internal ear, in which vertigo and disturbed co-ordination constituted the most prominent symptoms, to prove that the reverse of the foregoing illustration is also met with, and that giddiness, tinnitus and disordered equilibration are also in these cases more frequent and prominent symptoms than the loss or impairment of the hearing.

J. B., an old and rather feeble German, has a useless right ear. Two and a half years ago he began to suffer from sub-acute attacks of otitis media (left ear), with tinnitus and occasional paroxysms of giddiness. The first attack was most violent, and lasted half an hour. The vertigo subsided, but the tinnitus and slight deafness persisted; one slight attack of giddiness followed this first at-

tack, and then a period of six months intervened during which he was free from annoyance. Since then the giddiness has been more frequent, and the tinnitus has been excessive, and has occurred at all times of the day and night, especially early in the morning in bed. There was always great cardiac distress, and great fear and anxiety and marked prostration, together with pronounced and progressive diminution of the hearing power.

Hydrobromic acid and monobromate of camphor always relieved this patient's vertigo and tinnitus. Tonics—iron, quinia, phosphorus, strychnia, and malt—invariably aggravated his symptoms.

The interesting observation by Trousseau of vertigo *a stomacho læso*, has since then been repeatedly corroborated. During the late American war, several surgeons signaled the interesting fact that injuries to the brachial plexus often caused sudden and marked prostration, falling to the ground without unconsciousness, and marked giddiness, tinnitus and deafness. Dr. Woakes, of London, England, has repeatedly aided to interpret these interesting phenomena of labyrinthine disturbance, giddiness, etc., by a most interesting and rational analysis of the symptoms, and has established their relationship and dependence upon disturbances in remote parts of the body, transmitted along the sympathetic or vaso-motor channels, and inhibiting or disturbing the blood supply in the labyrinth.

To illustrate this form of vertigo and attendant deafness, I cite a most interesting case. The giddiness, tinnitus and the prostration which followed the attacks, and the marked mental depression, fear and anxiety which existed during the attack, constituted the most prominent symptoms. The deafness, although it caused great alarm, was not so much dreaded as a repetition of the paroxysm or spell.

J. H., a quiet and intelligent gentleman, states that he has suffered from dyspepsia and failure of general health, together with attacks of pruritus, which have occurred

every year for almost thirty years. The attack of pruritus occurred for many years during the month of June. It would last eight or ten days and then would disappear, and was relieved and modified by liberal doses of sulphur and cream of tartar. The attack, as years advanced, gradually approached the beginning of the year. Eight years ago it commenced in January and remained for six years without cessation, affecting almost every region of the body. He consulted dermatologists in this country and abroad, but the dyspepsia persisted, and the pruritus and annoying itching defied all internal and external treatment of all the many remedies—ferrum, phosphorus, carbolic acid, camphor, etc., and the local use of the various sulphur, steel and iron baths, and countless lotions. The bromides afforded him most relief. The pruritus was assigned to gastric and hepatic disturbance, and was finally treated for a purely nervous affection.

At this time there were no evidences of central disturbance, and he did not suffer from giddiness. Ten or eleven years ago he suffered from tinnitus, which was due to an accumulation of cerumen, and which was relieved by his family physician. Several times after this he had paroxysms of tinnitus, probably due to sub-acute otitis media catarrhalis, but his hearing continued good. In February, 1882, he suffered from an attack, which aroused his anxiety. The pruritus had markedly subsided during the last two years, but his digestive trouble still persisted, and caused him considerable annoyance.

At this time he was suddenly attacked by a feeling of malaise and prostration, with cardiac distress and oppression of breathing, to which was added tinnitus, and soon afterwards vertigo and disturbed equilibrium. Slight nausea, but no vomiting.

This attack recalled to mind a somewhat similar attack which occurred during the preceding summer, and which was considered a mild attack of insolation.

The tinnitus and perceptible reduction of the hearing

remained after he had recovered what he considered his usual health.

The second attack occurred about six weeks ago. It was more violent, and was followed by more marked prostration; and exhaustion and giddiness continued for several days after the attack. After this second, he had three severe paroxysms, induced, he thinks, by digestive disturbance and over-exertion, which succeeded each other at intervals of twelve days. The prostration which followed these attacks was more pronounced; the vertigo and disturbed equilibration continued for days after the attack, and in a slight degree all the time; it was influenced by gastric disturbance, and by physical exertion or mental excitement. Three weeks ago, while busy at his home, he experienced marked symptoms of fatigue, followed by an attack with marked giddiness, tinnitus and deafness.

Patient is rather below the medium height, is very quiet and slow in his movements. His face is pale, and he complains of tinnitus and of giddiness, which is more pronounced after a meal, and is always aggravated by sudden or continued exertion.

Examination of ears shows catarrhal alterations of both. His hearing is very defective. With difficulty and close attention he hears the tick of an ordinary watch when tightly pressed against the ear. Ordinary conversation, when spoken in a distinct tone, he understands without difficulty.

LARYNGEAL DISEASE AS AN ELEMENT IN THE PROGNOSIS OF CONSUMPTION.

By W. C. GLASGOW, M. D., *Lecturer on Laryngology and Physical Diagnosis, St. Louis Medical College.*

THE frequency with which a morbid condition of the larynx is found in the different stages of pulmonary phthisis, must have attracted the attention of all present

who have had much experience with the disease. Heinze, in his valuable monograph, states that in 1,226 cases of pulmonary disease, 376 showed ulceration of the larynx. McKenzie also states that in an examination of 100 cases of pulmonary phthisis, in only 20 was the laryngeal mucous membrane normal. I believe these figures to be rather below than above the true number, and this would more especially be true in climates showing great variations of temperature and humidity, and more especially in localities in which the air is frequently laden with irritants. According to my experience, it is an exception to the rule to find a case of phthisis with a perfectly normal larynx.

The importance of laryngeal disease in the prognosis of phthisis can be clearly shown by consideration of the principal symptoms. Of these I will simply mention the cough, the pain on swallowing and the excessive secretions of the larynx. The cough is a feature in all stages of the disease, from incipency to final dissolution. The cough of the earlier stages, very often of the later and last stage, is essentially due to laryngeal irritation. An exception to this statement must be made for those cases in which the cough is necessary to free the bronchi from the accumulating secretions and the detritus of disintegrating tissues. The observations and experiments of Nothnagle, Stoerk and others have proven an imperfect sensitiveness of the lung tissue and of the bronchi to irritants; they have shown the most sensitive part of the respiratory mucous membrane to be the inter-arytenoid commissure of the larynx, and next approaching this, the membrane at the bifurcation of the bronchi and the fibrous or posterior portion of the trachea. The injurious effect of a constant or paroxysmal cough on the well-being of a phthisical patient is self-evident. The loss of rest at night, the exhaustion following repeated paroxysms, and the mental depression peculiar to so many forms of laryngeal disease, must have a most unfavorable influence on the disease.

The vomiting which is so often found accompanying and

following paroxysms of coughing neutralizes in a great measure our best efforts towards the nutrition of the patient. The interference with nutrition which takes place whenever the act of swallowing is accompanied with pain, needs few words of explanation. The nourishment constituting a continued life or death of a patient will be dependent, in many cases, almost as much upon the condition of the larynx as upon the proper performance of the digestion. The impairment of either destroys our hope of an arrest of the disease.

The excessive secretion of the laryngeal and pharyngeal membrane exerts an unfavorable influence in several ways. In the first place it is weakening; again, it is a cause of coughing, but not the least important is the disturbance of digestion it produces. Many cases of gastric catarrh in phthisical patients are intensified by the deglutition of the secretions of the laryngo-pharyngeal membrane. Where the muscular power is impaired in the latter stages of the disease, the accumulation of these secretions about the esophageal face of the larynx causes at times the greatest distress, and produces a sensation of strangulation or suffocation.

Recognizing then the importance of the laryngeal lesion in the prognosis of phthisis, it will be interesting to examine the pathological conditions present, and to investigate their susceptibility to improvement and cure. I do not intend, however, to enter into a discussion of the "tubercle question," for this will be foreign to the subject of this paper, and where the best pathologists and microscopists are still at variance, it will be better to leave the question open. I would rather, as a point of more interest to practical medicine, consider the disease from the evidence of clinical experience, as shown by the laryngoscopic mirror. With this in view, I shall present for your attention the following cases as types of many occurring in daily practice, and it will readily be seen that the recognition of the

type will have an important bearing on the prognosis of the disease.

CASE I.—Mrs. E., aged 35, had had recurrent chills with fevers for more than a year, had had night sweats during the last four months, with excessive and increasing weakness and emaciation. During the last year she has had a hacking cough, which at times has become paroxysmal, and which has often caused vomiting. She complains of a constant dryness and irritation of the throat which causes tickling. An examination of the lungs indicated phthisis in the second stage. An examination of the larynx showed the mucous membrane to be extremely pale, with a diffused congestion of the posterior portion of the larynx and a slight thickening of the inter-arytenoid space; also a marked congestion of the membrane over both arytenoid cartilages. Under the use of symptomatic and general remedies, combined with local applications to the larynx, the patient has greatly improved, the cough has entirely disappeared, the night sweats and fever have ceased, and she has gained greatly in flesh and strength.

CASE II.—T. H. D., aged 30, came to me last March complaining of a constant cough, caused by a tickling in the larynx. He had slight fevers with occasional chilly sensations, occasional night sweats, and had been losing both flesh and strength for many months. A laryngoscopic examination of the larynx showed an infiltration and inflammation of the mucous membrane over and around the right arytenoid cartilage, the larynx otherwise slightly congested. An examination of the lungs showed a slightly dull percussion sound in the infra-clavicular space of the right chest; broncho-vesicular breathing and numerous sub-crepitant râles were heard in the same location; the lungs were otherwise normal. Local applications at once improved his cough, and his other symptoms subsided under the use of hypophosphites and counter irritants. The thickened laryngeal mucous membrane gradually lost its redness and swelling, subject however to frequent exacerbations,

which were simply sub-acute attacks engrafted on the original lesion. A summer in Minnesota, with the continued use of tonics, has seemingly arrested the pulmonary disease. He now presents the appearance of one in perfect health. The arytenoid membrane is still thickened, and is prone to become hyperemic from the irritation of dust, or in changeable weather. His cough has entirely disappeared.

CASE III.—G. W. T., aged 26, has had a cough for more than two years. About two years ago he was subject to intermittent spells of fever and night sweats; his cough was very troublesome, and he lost strength and vigor so rapidly that he was compelled to give up his work. In about six months he regained his health and strength somewhat, but has continued in an unfavorable condition up to the latter part of the past summer. In September he "caught cold," as he expressed it, and the cough became paroxysmal, giving him little rest day or night. He was constantly in a sub-febrile condition, with an occasional night sweat. I saw him first about November 1st; he then complained of an incessant cough and great weakness. An examination of the lungs showed extensive infiltration of the upper portion of both lungs; the percussion sound was dull and the breathing bronchial, and this was greatly obscured by numerous crackling râles over the right lung.

An examination of the larynx showed an infiltrated, swollen condition of the posterior surface, more especially about the commissure, an ulceration at the processus vocalis, and the right cord was thickened and swollen. Local applications were made, and he was given Fellow's hypo-phosphites. The first application to the larynx greatly modified the cough, breaking up the paroxysmal character and causing him to expectorate with more ease. The cough often entirely disappeared, but promptly returned on taking cold. The ulcer has not healed, but the general condition of the patient is improved.

CASE IV.—E. J. W., aged 36. I saw the patient first

about four years ago. He had then catarrhal phthisis of the upper portion of the right lung, with night sweats, chills and hectic fever. He also had sub-acute laryngitis. The cough was persistent and violent, paroxysms often ending with vomiting. Under the use of general remedies and local applications to the throat, he gradually and steadily lost all his phthisical symptoms, the cough alone remaining. At times this would entirely disappear for months, and again become troublesome and violent from colds or over exertion of the voice. This has continued up to the present time. The mucous membrane of the posterior surface of the larynx is very much thickened. A low degree of sub-acute inflammation persists in the inter-arytenoid space, and at the commissure a small mass of vegetations is visible. His lungs show no sign of disease at present, and he complains solely of the cough, which invariably returns when he takes cold. At these times a fresh exacerbation of the inflammation in the larynx is visible in the laryngoscopic mirror. In this case repeated application of blisters has had a most beneficial effect.

CASE V.—G. T., aged 30. I saw this patient first last autumn. He had then an infiltrated condition of the upper part of the left lung, with the physical signs of phthisis in the second stage. In the spring previous he had had hectic fever and night sweats, but when I saw him all of these symptoms had disappeared. An examination showed a sub-acute inflammation of the larynx. He complained of a feeling of rawness in the larynx and of a constant tendency to coughing. This was promptly relieved by local applications. I saw him again in May of the present year; he then had constant fever, profuse night sweats, and was excessively emaciated. He complained of great difficulty in swallowing, and an excessive accumulation of the secretions in the larynx, this latter often bringing on spells of suffocation. An examination of the lungs showed that extensive softening was taking

place in both lungs. In the larynx there were several ulcerations, one on the right true and false cord, another over the right arytenoid cartilage. His throat improved at first under local application, and he was enabled to swallow with more ease. Treatment, however, soon lost its effect, and there was no perceptible improvement in the ulcerations. He died in a month from exhaustion.

We see in all of these cases the same pathological condition of the larynx, differing only in degree and intensity. In all we find inflammation of the larynx, which is characterized by a low grade of inflammatory action. We also notice a tendency to chronicity, and to a thickening of the mucous membrane, due to a multiplication or a hyperplasia of the cell elements. To these conditions may be added a proneness to exacerbations of the inflammatory process from slight irritation, and a general lessened vitality or diminished power of recuperation of the tissues. When ulcers are present they are the follicular ulcerations due to the degeneration and destruction of the glandular structures. Simple ulcers may also be present. The ulcerations are always sluggish and slow to heal, but in some cases the integrity of the tissues is restored under proper stimulation. The most common site is at the processus vocalis and on the true cords. Wart-like growths are often seen springing from the commissure. The affected membrane is of a deep red color, and contrasts greatly in many cases with the general pallor of the surrounding tissues. Œdema is not a marked feature; the different grades of inflammation are not confined to special stages of phthisis; a great thickening of the mucous membrane may be found in the first stage, or simple hyperemia in the last stage. The most prominent symptom of the disease is the cough. This may be a simple clearing of the throat, a constant hack or a violent paroxysm. Often this is due to a hyperæsthetic condition of the membrane which gives the sensation of tickling. This sensation is often referred by the patient to the region of the sternum and

not to the larynx. An excessive secretion is at times present, which gives rise to constant coughing or to a sensation of suffocation or strangling.

Shall we call these cases laryngeal phthisis? I think not; for although it is very frequent in persons with pulmonary phthisis, still a somewhat similar condition occurs in those who have neither signs nor symptoms of lung disease. I have noticed it in persons who, although themselves sound, have a family history of phthisis, and in whose families enlarged tonsils, nasal catarrh, enlarged glands and chronic joint troubles are to be found. In short, it is found in the strumous and the inflammatory process is exactly the same, whether it attacks the larynx, the eye, the nose or the joint. It is an inflammation modified by the characteristic features which the strumous diathesis exerts on all inflammations—that is, a hyperplasia of the cell elements, and a tendency to chronicity. There is certainly a difference to be found in the phases of the disease in a strumous and in a phthisical subject. I have never seen a warty growth nor an ulceration in the strumous, except when lung disease was probable from the symptoms, even if it could not be shown by physical signs. As a rule also the thickening of the tissues is more limited in extent and less marked than in a phthisical person. The response to local treatment is also quicker and more lasting in the strumous, and there is not the great tendency to exacerbations which we find in phthisis. In phthisis the response of the laryngeal lesion to treatment depends essentially upon the extent and activity of the pulmonary disease. If this is in the earlier stages, or if there is a tendency to a stage of arrest, it is favorable; but if the lung disease is active and advancing, local treatment is of little value. The following cases present an entirely different type:

CASE I.—J. S., shoemaker, aged 45, has phthisis in the third stage, with cavity; has night sweats, with constant hectic fever; great emaciation, and has had several hemorrhages. When I called to see him he complained that he

had been taking food for some time with the greatest difficulty on account of the pain caused by swallowing. When I saw him he had almost entirely ceased to take nourishment. Examination of the larynx showed the mucous membrane to be excessively pale, with a great thickening of the membrane over each arytenoid cartilage, forming two pear-shaped swellings, which were edematous. The left false cord was much swollen, with a general thickening of both true cords, and an ulceration at the processus vocalis extended partly on the false cord and partly on the arytenoid cartilage. Insufflation of iodoform and morphia to the ulcer caused it to heal quickly, and in a short time he was able to take his food with great ease. He died ten days after this from hemorrhage. The ulcer in this case was of the aphthous character.

CASE II.—Mrs. L. M., aged 23, had active phthisis in the third stage, night sweats and hectic fever; had had previous hemorrhages. The mucous membrane of the larynx in this case was very pale and greatly thickened; the posterior surface was especially infiltrated and edematous; she complained of an obstruction existing in the throat which prevented her from swallowing; the secretions were very abundant, and they were expectorated with great difficulty. Scarification of the edematous swelling and the external application of blisters gave temporary relief; local applications were useless, and she died from exhaustion.

CASE III.—Mrs. H., age 50. A case of arrested phthisis in third stage with hemorrhage. She complained of great pain on swallowing and aphonia. The cough was not very marked. An examination of the larynx showed a general and great thickening with anemia of the mucous membrane. An ulceration existed at the commissure, extending to the left cord, and there was a second ulceration over the right arytenoid cartilage. Several months of local treatment caused a great improvement in the ulcerations; the pain on swallowing disappeared

almost entirely, and there was a general improvement of her condition. Some two months later she caught cold, and there was a return of all the laryngeal symptoms.

We find in this class of cases a great pallor of the mucous membrane; the color is never of the deep red seen in those of the first class; it is of a pale red and often presents a livid, white appearance; there is great thickening of the tissues, especially of those about the arytenoid cartilages. In many cases we find great pear-shaped swellings, which are characteristic; there is always more or less edema, often of the aryepiglottic folds, or the esophageal face of the larynx; the livid, boggy appearance of the mucous membrane may be said to be characteristic of this class of cases; ulcerations are frequent and often extensive; they may be superficial or deep, but they are always ragged and irregular, surrounded by thickened indurated tissue; they may be of aphthous character, or they may be due to follicular destruction; excrescences are often to be seen at the commissure, and around the ulcers; an excessive secretion is often present, but in many cases the secretions are not increased. In this class of cases the cough is not as marked as in those of the first class; the mucous membrane is not so sensitive, hence the violent paroxysms may be absent; the cough is mostly to free the larynx and bronchi from the accumulated secretions; pain on swallowing is very often a prominent symptom, and to this may be added an obstruction to the act of swallowing. The pain is especially severe when the epiglottis or the aryepiglottic folds are ulcerated. Great edema or thickening of the posterior surface of the larynx interferes with the act of swallowing. I have never seen a case of this class except in a subject of pulmonary phthisis, and this condition of the larynx may be called characteristic of the disease, hence it is a true laryngeal phthisis. I have never seen any permanent improvement in such case from treatment, although great relief may be given to certain symptoms.

The cough and pain are relieved by local applications of iodoform and anesthetics. Secretions may be checked; edema may be greatly lessened by scarification; the application of counter-irritants to the larynx is often useful. It has been claimed by some that these cases should be considered an advanced stage of those of the first class. I cannot agree to this, for I have watched cases belonging to the first class for a long time, and they have never assumed the characteristics of the second class. I have also seen cases in what I considered to be the early stages of the second class, but which differed essentially in appearances from similar cases of the first class. These cases in their earlier stages present an appearance which is not easily described, but which is positive. To say that the tissues have a boggy appearance is at best an imperfect description. In some cases there is a glazed appearance of the membrane. One thing we are certain of, however: whenever we meet with this condition of the larynx we may be certain that the patient is consumptive, and that the disease either already exists in the lung, or that it will soon be found.

CASE I.—J. L. T. About six years ago this patient came under my charge; he had then catarrhal phthisis in the upper portion of the right lung, with cough, hoarseness, night sweats, constant fever, great emaciation and loss of strength. There was a sub-acute inflammation of the right vocal cord. He recovered entirely from this, and although I saw him at intervals, he did not consult me again until February, 1880. At this time he complained of great hoarseness and debility. An examination of the larynx showed an intense redness of both the false and true cords, a condition so simulating that due to syphilis that I put him on syphilitic treatment. No great improvement, however, followed, and he gradually grew worse. In March he visited Florida, and thought he experienced some relief, but on his trip homeward he caught cold and returned unimproved. In May he visited New Mexico.

After being there about a week he was suddenly stricken with hemiplegia; he became gradually worse and his voice lost its tone; he suffered so much pain on swallowing that it became almost impossible for him to take his food. He returned to this city in June, and I found him in this condition. An examination of the larynx showed the greatest changes; the whole surface was covered with ulcerations; the epiglottis was partially destroyed, and the entire membrane was of a grayish color, and it was covered with profuse sanguineous muco-purulent secretion; it was hardly possible for him to even take liquid food, and he suffered the greatest distress in attempting to expectorate the secretions. His lungs were carefully examined by Dr. J. K. Bauduy and myself, and no signs of disease could be found. His temperature was constantly from three to four degrees above normal; it could be reduced temporarily by large doses of quinine, but invariably arose with its withdrawal; no improvement of the paralysis took place. About three weeks before his death an examination of his lungs showed a few indistinct, distant, small, moist râles. These gradually increased, and at the time of his death the respiratory sounds were completely obscured by the great abundance of the râles. The percussion sound continued normal. Through the insufflation of morphia and iodoform the secretions in the larynx were largely checked, and the pain somewhat relieved, and he was able to take his food with more ease. No post-mortem examination was held, but this was undoubtedly a case of miliary tuberculosis.

CASE II.—C. H., aged 38. This patient came to me in the spring of 1878, complaining of a peculiar veiled tone to his voice. No perceptible laryngeal or pharyngeal lesions could be discovered, except a general atony of the mucous membrane. He recovered his voice completely in a few weeks. The next spring he returned complaining of the same symptoms, which remained persistent for more than two months, when his voice again returned to

its normal tone. About eight weeks later I again saw him; he was weak and had been losing flesh and strength. An examination of the lungs showed no sign of disease; his voice was husky and weak, and he complained of pain on swallowing. An examination showed an ulceration of the right arytenoid fold; also a second distinct ulceration in the inter-arytenoid space. Treatment had no effect in healing the ulcers, and the only relief he obtained was from local applications of a solution of carbolic acid, which produced anesthesia and allowed him to take nourishment during the following two hours. He gradually became weaker and more emaciated. About a month later an inflamed follicle in the pharynx became so hypersensitive that it prevented his taking food without the previous application of the local anesthetic. This was probably a pharyngeal tubercle. To the ulceration in the larynx all manner of applications were made, but they showed no healing tendency and it continued to spread. I examined his lungs often and carefully, and could find no sign of disease until within two weeks of his death. On my last examination I found the respiratory murmur to be harsh in character, with a short expiration expressly marked in the upper portion of both lungs; the percussion sound remained normal. During the whole course of the disease there had been a continued high temperature. He left the city soon afterwards, and in about four weeks was taken with a diarrhea, to which he succumbed. This appeared to me to be a case of miliary tuberculosis.

In both these cases there was the greatest prostration and emaciation; there was persistent high temperature with rapid pulse. In both the laryngeal membrane was very anemic and covered with the most abundant secretions; the pain on swallowing was intense and persistent, and in both the disease of the larynx had caused great destruction of tissue before any sign of disease was appreciable in the lungs. I think these cases may be considered

as malignant from the beginning. I judge this from the rapid progress which continued unchecked. It is probable that these were true cases of miliary tuberculosis of the larynx in which the miliary tubercle appeared later in the lungs. The hyperesthetic follicle in the pharynx of the second case resembles in all respects cases which have been recently reported as cases of tuberculosis of the pharynx. The treatment was of no avail in staying the progress of the disease, yet, however, it gave temporary relief in alleviating the most painful symptoms.

I have thus endeavored to show the several types of laryngeal disease which occur in the consumptive. They seem to vary in many respects both in the local action and in the general constitutional disturbance. The prognosis will be seen to depend largely upon the type of the disease. I have dwelt upon the first class of cases, as they constitute the large majority of cases met with in practice, and their general susceptibility to improvement or cure may be of vital importance towards the arrest of pulmonary phthisis. By some no distinction has been made in these different types of the laryngeal disease. All these cases have been called indiscriminately laryngeal phthisis, or tubercular laryngitis, and some have even asserted the curability of this disease. I claim that the cases of the first class are simply inflammatory, modified by the strumous diathesis, and that they are not caused by tubercle. The second class of cases is met with more rarely; they are essentially of a chronic character, and the changes they cause in the larynx are irreparable, and thus they are incurable; they are strictly cases of laryngeal phthisis. The third class of cases is very rare, according to my experience, and in these the destructive process advances with the greatest rapidity to the end. What the element of malignancy is I am not prepared to say. It may very possibly be due to the presence of active miliary tubercle.

In conclusion, I believe we may have mixed types, and I think I have seen several instances in which the first and second class of cases have assumed the characteristic appearance of the third. The case of G. W. T., of the first class, is of this character. In this case we find malignancy added to the original process, and it is possible that this may be an engrafting of miliary tubercle on the strumous, or phthisical laryngitis; this takes place in the lungs, and it may also be true of the larynx.

EIGHTEEN CASES OF PLACENTA PREVIA.

BY M. YARNALL, M. D.

[Read before the St. Louis Obstetrical Society, January 18th, 1883.]

IN a former paper read before this society, if I remember correctly, I reported nine cases of placenta previa as having occurred in my practice. The very night that that subject was under discussion before this society, I was called to attend another, which, though giving more promise of a favorable result than most of my previous cases, and likely to add to the happy results that had followed my practice up to that time, proved unfortunate. It was the forerunner of others of a like character. The mother died; not, however, until successfully delivered, and then of post partum hemorrhage and exhaustion.

Following this came a series of unfortunate cases with two exceptions up to my seventeenth.

I have attended one recently with a medical gentleman who sent for me on the evening of the 2d inst., making in all eighteen that have come under my personal observation. In this last, instrumental labor was successfully accomplished, both the mother and child surviving, and are now doing well. I will describe this case more in detail farther on. With five exceptions I have attended these

cases as a consulting accoucheur, nine times with medical gentlemen, four times with midwives and five times alone.

I do not propose to elaborate the whole subject of placenta previa; this has been done in a paper read before this society by Dr. Maughs. I wish to elicit the views of members as to the treatment in extreme cases. My own, with few exceptions, have been so exhausted that they were almost at the point of death; my practice has been to deliver without delay; those who have died have, as a rule, been no more serious cases when I first saw them than those who have survived; death in every instance, save one or two which might have been attributed to shock, has been from post partum hemorrhage; and, while speaking of post partum hemorrhage, one would naturally suppose that ante partum hemorrhage in placenta previa was the only danger to fear; post partum is almost equally to be dreaded, because delivery in these cases is always more or less forcible, and there is more or less laceration of the neck; not only are these lacerations a cause of continued hemorrhage in the already exhausted subject, but the lower segment of the uterus to which the placenta has been attached, and the generally relaxed and disorganized condition of this part of the organ, tends to make post partum hemorrhage more to be feared than shock or any other cause following delivery. I now deeply regret that I had not in the past, as I will in the future, should I ever have another case of placenta previa, use hot water and styptic washes the moment delivery is completed, so as to anticipate and prevent post-partum hemorrhage. Had I done so, I believe I could have presented a better record.

My report of cases is not given in detail, but in a general way, trusting that it will, without being tedious, assist in making clear my views of treatment, and call out the various ideas entertained by members of the society.

It will be remembered that Dr. Maughs advocated and sustained by illustration the method of restoration before delivery in cases of extreme exhaustion, "where the

patient seems standing on that border land," not dead, yet scarcely living. Deeming it almost certain that the shock consequent on delivery would cause death, Dr. Maughs advises the use of styptics, iron and tampons to control the hemorrhage; then to secure restoration by nourishment, stimulants and time, until a more favorable condition will justify a comparatively safe delivery.

The only alternative to be pursued, other than that advocated by Dr. Maughs, is to deliver and take the chances of shock, post partum hemorrhage or thrombus. There can be no question as to the propriety of delivering at or near full time when the condition indicates no immediate danger. If delivery is at all practicable we thus prevent exhaustion. Then we only have to decide which course to follow in extreme cases of prostration. Should we decide to endeavor to restore the patient, so that she may be better prepared to survive the shock, we must remember that a slight continued oozing of blood may, probably will, cause death. Use iron or tampons as we may, more or less loss of blood will occur. If she will survive this treatment, I am almost certain she will survive delivery. If we try the palliative method, and she should die, then would come the regret that delivery had not been accomplished. While I admit it is an open question as to which course is best, I believe either justifiable and may prove successful, or either may fail; my predilections lead me to favor delivery at once.

The first case of placenta previa I had, was one that occurred almost immediately after I began practice, early in 1868. It was a most formidable one—central implantation existed; the loss of blood could not have been greater and the patient have lived. Whilst examining and trying to dilate the os with a Barnes' water bag dilator (by the way, a miserable instrument is this Barnes' dilator, and worthless), she was exhausted and pulseless, with cold, clammy extremities; she fainted, and though I believed her dead or dying, I thrust my hand beyond the

margin of the placenta through the envelopes, seized a foot, turned and delivered. The woman was completely unconscious; I had great difficulty afterwards in restoring her; for days she waivered between life and death. A more extreme case of prostration I have never seen live. She and her child are well at this time; she has since had four children. My success made an indelible impression that has induced me to believe that no case is so far gone as to prevent immediate action. I may be wrong.

As I have stated, I have had eighteen cases in all; one was dying when I was summoned to attend. This case, while I include it, is worthless for statistical purposes. The woman was moribund when first seen, but she was delivered of a dead child. I attended this case in conjunction with a medical gentleman with whom I have had two additional cases; one mother and two children survive. Of the first nine cases, eight mothers and seven children are alive at this time for aught I know; they did well after confinement. Of the last nine, one, already alluded to, was dying when I first saw her; of the eight remaining, three mothers and six children lived; all were delivered (I have never left a case of placenta previa undelivered).

Note the difference: of the first, nine only one mother perished: of the last nine or rather eight, for I will omit the one who was dying, only three lived. Nature here, as if to teach me a lesson, reversed the order. My first experience almost convinced me that I had discovered the only proper method of treating placenta previa, viz: to deliver when practicable, no matter how exhausted the patient might be. I will here mention cases that I deem it impracticable to treat in this way; they are those in which the os is not dilated or to any extent dilatable. In such, and I have met them during the seventh and eighth month, in which alarming hemorrhage occurred at intervals, making it necessary to do something, the rigidity of the os prevents the superinducement of labor, then it is correct to force the finger through the os and sweep it

around, detaching the placenta as far as one can reach; this will almost invariably cause a cessation of the hemorrhage for a time at least; but during labor, while this proceeding might be tried, it will avail little, because new uterine surface is constantly being detached from the placenta, opening sinuses, causing renewed hemorrhage at each uterine contraction.

The five deaths that occurred came after pursuing the same method of practice which had, with one exception, been successful in my earlier practice, and when they seemed to promise as good results; this shook my faith somewhat, though it has not destroyed it, compelling me to question which course is best, immediate action or the palliative method.

The case to which I have already alluded, occurring on the 2d of the present month, was interesting to me only on account of the method of delivery; obstetrical forceps can only be used in marginal implantations, and then only in rare, exceptional cases. This one was of this character, and the only one that has occurred in my practice in which I could have employed instruments. The hemorrhage was considerable and alarming, the patient greatly exhausted but not pulseless; the os was dilated to the extent of one and a half inches, and dilatable; the head was resting well in the superior strait; the pelvis was capacious; the margin of the placenta corresponded with the margin of the os; the gentleman in attendance agreed with me, in fact urged me, to deliver immediately with forceps. We deemed this practicable, indeed the best method in this case. I swept my fingers around and dilated the os as much as possible and applied the instruments; the space was not great, perhaps two inches; I have made the application on several occasions with no more room; I dragged the head with little difficulty through the os and delivered a live child; the placenta came almost simultaneously; the uterus contracted fairly well; the slight hemorrhage that continued was probably owing to some laceration of the

neck, as well as to the somewhat disorganized condition of the uterine walls, admitting of more or less flow. This induced the gentleman in attendance to remain some time with the patient. He had some trouble controlling the hemorrhage, but succeeded. This patient and her child are now quite well.

In relation to my objections to Barnes' dilator, it is proper to give my reasons for condemning this instrument. To those who have endeavored to use it in placenta previa cases my objections are unnecessary, because they have already condemned it; but to those who may be tempted to try it I will offer what I deem unanswerable reasons, sustained by observation. The os uteri is a soft ring, more or less rigid and more or less dilatable. In placenta previa, if the head or the breech of the child is presenting, it will press down the placenta so as to prevent the introduction of the water bag, or if the resistance is not great it will become so; as we dilate the bag with water it will be forced into the vagina; in short, it cannot be kept in position. Should no resistance be offered by the presenting placenta and the fetus behind it, and this will be the case where the child lies crosswise, and these transverse positions constitute a large proportion of placenta previa cases, then there being but slight resistance the water bag will slip above the ring formed by the os; as it does so the patient will probably bleed to death, owing to the opened sinuses caused by the detachment of the placenta; this may occur while we are manipulating. It requires time to introduce and dilate the bag with water; it may be but a moment of time, but in placenta previa a moment may break the link that holds to life. I say, from actual observation, that this soft rubber bag cannot be retained in position; it will either go beyond the os into the cavity of the womb or it will slip out into the vagina. I defy the most expert operator to keep it in position. The water bag may in some cases, other than placenta previa, be useful as a dilator; I, however, have been unable to accomplish good with it. I

have used, or rather attempted to use it, in cases of contracted pelvis when I wished to dilate the neck in order to bring on premature labor; and, while I have found the Molesworth dilator useful, the Barnes water bag has in my hand proved impracticable and worthless.

And now, in conclusion, I only wish to state that I have attended to patients when exhaustion was so great, the prostration so appalling, that death seemed inevitable, and complete reaction or restoration occurred after delivery; and, again, I have delivered when the prospect seemed relatively flattering, and post partum hemorrhage, shock, or thrombus, caused rapid dissolution, so that under all circumstances placenta previa may prove fatal. With the light of my present experience before me, I will in the future as in the past take the risk and deliver. I am convinced that the chances are as great for favorable results by the aggressive method, by immediate action, as by the palliative plan, to wait, hoping to find a more favorable moment.

HISTORY OF OBSTETRICS—MECHANISM OF LABOR.¹

By P. V. SCHENCK, M. D., *Lecturer on Clinical Gynecology in the Missouri Medical College.*

NO other branch of the profession presents so much of general interest, superadded to that known as professional interest, as the department of obstetrics. If since the fall there is anything left of love upon the earth, it is that which man bears to woman and her offspring. As the companion of the mind, as the model of a friend-

¹This lecture was the first one of a course upon the mechanism of labor, delivered to the class of the Missouri Medical College. Dr. Schenck has acceded to the unanimous request of the class in furnishing a copy for publication, although it was not prepared for that purpose.

ship which no chance can shake, as the pleasantest sharer of the heart of hearts—the being to whom man returns after the tumults of the day like the worshiper to a secret shrine to revive his noble tastes and virtues at a source pure from the evil of the external world and glowing with a perpetual light of sanctity and love—where shall we find her equal? and naught but admiration and gratitude should go from us to that Mighty Disposer who has combined our highest happiness with our purest virtue. In the infant there is a purity that makes a sacredness in the very name. There is no beast so wild, no man so low, that he does not love his offspring. To alleviate the sufferings of woman, to stand by the bedside of the mother in her hour of greatest need—such shall be your province, and to administer to her ills your duty. This special field of our study is the more extensive because in its domain, with the exception of our first parents, it embraces all the human family. Man must of necessity commence existence in the body of his mother. Though instances are of record where through Divine influence man passed from this world without death; yet Divinity himself, when he appeared upon the earth, must needs go through the process of uterine life, His mother be delivered, and He be an infant and a child. The ovary has always been the commencing point, the contracted route through the Fallopian tube the necessary way to reach human existence. We all thus commenced; it is a route we all have traveled.

The subject which I shall present for your thought is the mechanism of labor. I hope you will give me your attention, and that the teacher, as well as the pupil, may be taught; that I may be enabled to hold the lamp low on the difficult path, and that with your general interest in the profession a special interest may be induced on your part. Let us briefly survey the history of obstetrics, and note its advance as an art and as a science, with the assurance that you who are about to enter a new field,

like the thrifty farmer about commencing to till the soil, would desire to learn of the acreage, quality and past productions of the field as well as the previous workers.

Midwifery is a word of Anglo-Saxon origin, indicating one who is hired for meed or reward. The term chiefly used in this country is obstetrics, a word derived from *ob* and *stare*, to stand near or in front of. The art is almost coeval with mankind. Women were its principal practitioners among the Hebrews and Egyptians, as well as among the Greeks and Romans. "Be fruitful and multiply" was God's first command. This command God reiterated to Noah and his family as soon as they left the ark. The sex of the child was foretold as early as in the case of Rachel, for when she was in labor she was assured with the words: "Fear not, thou shalt have this son also." Thus early we have an advance of the views of Frankenhäuser. Rachel's case was the first recorded death from childbirth. Twins were foretold in the case of Judah's daughter, for it is said: "Behold, twins were in her womb." Hers is also the first one of record where there was a spontaneous evolution in arm presentation. As if there might be doubt on the subject, it is recorded "that one put out his hand and the midwife took and bound upon his hand a scarlet thread, saying, this came out first." Thus we have the advance views which have immortalized Denman. The presentation at Jacob's birth was evidently vertex and hand, for it is stated that after that his brother came out, and his hand took hold on Esau's heel. The first two midwives mentioned by name were Shiprah and Puah. They withstood Pharoah when that prince commanded them to cut the cord in such a manner as to destroy all the Hebrew children. In Exodus it is recorded that women were delivered in chairs, and it is stated of the Hebrew women that they were not like the Egyptian women; for they were lively and were delivered ere the midwives came in unto them. Solomon placed the period of pregnancy at ten months. Ezekiel tells how to manage

new-born children, and that children were nursed until they were three years old. In Job and in the Psalms we have mentioned untimely births, and in Hosea there is a prayer for a curse upon a people to give them a miscarrying womb and dry breasts. Phenarete, the mother of Socrates, was a midwife, and his student Plato explains the functions and mentions the duties of midwives. Hippocrates, who practiced medicine in Greece nearly five hundred years before the Christian era, is styled the father of midwifery. He had the good fortune of writing in a language which was not only known but spoken with classical purity for a longer time than any other. He treated of the management of the placenta, and refers to the necessity of turning the child; that the head was the only natural presentation, and all others to be converted to that of the head. His illustration of the olive in the neck of the jar is familiar to every student. To the Greeks are we indebted for the works of Aristotle, who divided labors into natural and unnatural, and gave the signs of pregnancy. Celsus, the elegant and instructive abridger of the writings of Hippocrates, discovered the vectis, wrote a treatise on the uterus and its morbid states. He showed that a living child may be delivered by the feet, and removed the coagula remaining in the womb after the delivery of the placenta. He also wrote a work on the mechanism of labor. Herophilus was the great teacher of obstetrics in Athens. Pliny noticed the derangements of the digestive function during pregnancy, and said the main cause of difficult labor was the undue union of the ossa pubis. Aetius and Paulus Ægineta, surnamed Alkababel (woman's doctor), advocated the operation of craniotomy, and gave the following as the causes of difficult labor: A narrow pelvis, the presence of polypi, obliquity of the position of the child, ankylosis of the ossa pubis at their point of junction, distension of the rectum or bladder, and undue large size of the child. They also gave a description of the crochet. The

latter elevated the shoulder and placed the thumb under the axilla to alter an arm presentation, thus giving in advance the treatment of Wright and Hicks. In breech presentations he recommended delivery by the feet. As to the afterbirth, he preferred to wait for it rather than to use force. Aetius fully described the process of turning, and enlarged the views of Celsus, treating of obliquities of the uterus. Serapion, the Arabian, treated of the disorders incident to pregnancy. Rhazes discovered the fillet, and was the first to advocate the rupture of the membranes. Avicenna gave the first description of an instrument like the modern obstetrical forceps. He described it as one contrived for the purpose of delivering women in cases of difficult labor, preserving at the same time the life of the child. He confirmed the writings of the Greek school, and fell into the error of Hippocrates. Galen first taught that the muscles of the abdomen assist in expelling the fetus. After the decline of learning in the East, midwifery made her home in Arabia, and took up her abode under the protection of the Caliphs. When we consider how these magnificent and semi-barbarous sovereigns, with the exclusiveness of the harem, rewarded or punished their medical attendants as dictated by caprice or whim; when we consider that every book which escaped the general havoc was preserved by the care or partiality of private men, we should never cease to thank the Arabian physicians for their preservation of medical literature. As the Jews were the chosen people to preserve the sacred scriptures, so were the Arabs to the literature of our profession. The school of Salernum was our ark of the covenant. The progress of knowledge in the beginning was slow, the power of conveying it was limited, the abilities of particular men were very often lost by their death; but this obstacle was greatly removed in 1432 by the discovery of printing. In 1440 Guaynemus wrote that the placenta was delivered by weight, and if the cord broke a weight was used to take the place of

the child. If labor was slow, snuff was given, the bed shaken, etc.

In 1518, Linacre established the College of Physicians and Surgeons in London. Rhodion wrote in 1519 and gave the view of an obstetrical chair, and also a picture of a double-headed monster. Rueff, in the same year, improved the pincers of Avicenna, and named them *forceps longa* and *tersa*. He was the first to mention a thrombus of the vulva. In 1540, Thomas Raynold published his work called the *Byrth of Mankind, or the Woman's Book*. This remained as an authority as far as 1634. At this time all the works of Ambroise Paré were translated in one volume. Ambroise Paré, the famous restorer and improver of midwifery, made many useful observations; and in 1573 he showed that foot presentations were not dangerous, and that in malpresentations it was better to deliver by the feet than bring down by the head. This was the commencement of a new era, and breaks the trammels which had lasted two thousand years, and which were placed by the teachings of Hippocrates. In the same year the first scientific work on midwifery appears, by Roselin, in Germany. In 1621, Thomas Willis wrote an able chapter on puerperal fever, speaking of a class of such diseases which were simply inflammatory. In the early part of the 17th century the midwife of Marie de Medicis published a collection of observations on midwifery. In 1640, Henry Roonhausen, of Holland, claimed with Celsus the discovery of the *vectis*. Mynmahus wrote an essay on fetal life. In 1651, Needham wrote a work of high estimation upon the contents and economy of the grand uterus. In 1653, Dr. Paul Chamberlen invented the forceps with separate blades. In 1800, Denman mentions them, but says they are a kind of *vectis*. These forceps were not publicly known until 1815, when they were found in a tenant house in Essex. This instrument is now in the possession of the London Medico-Chirurgical Society. In the same year, 1653, Harvey published his treatise on Generation, under the title of *Harvey's Exercitationes*. In 1656,

Wharton published his *admographia*, in which he dwells in full upon facts connected with the gravid uterus. Hysterotomy was performed in 1661. In 1663, Madame de la Valaire was attended by Julian Clements. In order to do it he was conducted with the greatest secrecy into her house. The lady's face was covered with a hood, the king being concealed in the curtain of the bed. Mauriceau's treatise appeared in 1668, and for a long time was the standard. The operations in midwifery were regarded as a part of surgery, so that Mauriceau was in reality the first real obstetrician. He was endowed with great abilities and with extensive learning. In 1669, Walter Charlton published a work on the Causes of the Catamenia, and on Rheumatism of the Uterus. The manuscript written by Percival Willoughby, and given to Dr. Kirtland, shows the manner in which the practice of obstetrics was carried on from 1640 to 1670. In 1672, Chamberlen's son returned from Paris, where he had been to sell the secret of the forceps; and being foiled in their use, receiving much obloquy therefrom, he came back to England and, singular to say, he translated the work of Mauriceau (his opponent) into English. Van Hoone established a professorship of midwifery in Stockholm in 1697. Ergot was first used in the 17th century. In 1719, Diones' *Midwifery* was translated into English. Maubray, in 1723, published his book, "The Female Physician, or the Whole Art of New Improved Midwifery." In the following year he published an appendix, "Midwifery brought to Perfection." He was the first teacher in England, and most bitterly opposed the use of all kinds of instruments. In 1729, Simpson published "System of the Womb." In the same year, Deventer's book was translated and published. He was opposed to the use of instruments. Originally, Deventer was a watchmaker. Chapman was the first to describe the forceps in London, and the second public teacher of midwifery in London. Dr. Lapeynonie, surgeon to Louis XV, created two chairs of obstetric teaching. Diones reports a case of

ruptured uterus, and Gregory, the younger, gave a course of lectures in Paris. In 1733, Chapman published his treatise on the "Improvements of Midwifery." In 1734, Hody published a collection of cases in midwifery. Giffard gave a plate representing the forceps, and was the first who asserted that the placenta might be attached over the os uteri. In 1737, a school was established in Strasburg. In 1739, Richard Mannayham established a ward in the Parochial Infirmary, at St. James, for the reception of parturient women, which was the first thing of the kind in the British Dominion. In 1741, Sir Fielding Oulde's work was published, describing the passage of a child's head through the pelvis at birth, and made observations on the continuance of the thickness of the uterus during pregnancy. In 1752, Dr. Shippen gave the first lectures on midwifery in this country. In the same year, Smellie taught in England, and hung over his door that red lantern well known historically, upon which was written, "Midwifery taught here for four shillings." He was the first who accurately pointed out the progress of labor, the shape of the fetus, and the dimensions of the pelvic cavity. To Smellie, in England, and Devret, in Paris, is the credit due of separating obstetrics from surgery. Ruysch, of Holland, made the celebrated collection of fetuses which was afterwards purchased by Russia. He asserted, that after a practice of fifty years he had never found it necessary to introduce his hand into the uterus to extract the after-birth. In 1768, the plan was proposed by Sigault, of France, of dividing the ossa pubis, for the purpose of increasing the antero-posterior diameter; it was then as enthusiastically received as it is now universally condemned. Dr. Hunter, in 1745, gave views of the membrana decidua and reflexa. In 1789, a school of midwifery was established in Rome, under Pope Pius VI. In 1791, Frederick William Voight published a volume upon the diagnosis of pregnancy by the sense of touch. Chapman was the first public lecturer on obstetrics in England. Puzos was the first person in

France who was honored with the title of Professor of Obstetrics. In 1797, Baudelocque methodically arranged the presentations and positions. During the same year the Emperor of Russia established an obstetrical school in St. Petersburg. Bon and Schmidt, of Germany, and Naegele, of Heidelberg, gave an impetus to the science. In 1807, John Stearnes, of New York, explained more fully than had ever been done the virtues of ergot. In 1818, Mayer, of Geneva, first applied auscultation in the diagnosis of pregnancy. Anesthesia was first used in labor by Simpson, of Edinburgh. The cephalotribe was invented by Baudelocque, Jr. I will only mention, for time will not permit more, the names of many ancient writers, such as Felix Platu, Cleopatra, Bornaciola, Silvius, Ruff, Mercinali, Bottoni, Le Bon, Albucasis, Rousset, Caspar, Bauline, Cordeus and Merecado, but enough has been given to interest you in future research. Ancient productions are precious to us, rather because they come as a reflection of thought from ages long past, than because they represent the ideas of any particular individual, for posterity always takes less interest in individuals than in opinions. I need not go over with you the writers of late date. I trust they will be soon known to you from your own reading. This century has done more in our branch than all the others combined, and has been prolific in its writers. To mention the names of a few is sufficient, for, as to intellect, they stand beyond cavil equal to any other professional writers; Baudelocque, who seized the sceptre of obstetrics and applied the scientific ideas which he had derived from others; Naegele, who wrote a book, a true Euclid of obstetrics, a work which has exercised a greater influence than any other work of its size ever published in medical literature; and simplified the study of obstetric science; Cazeaux, whose work is truly classical, and well worthy what it has lately received, namely, a new edition; Velpeau, who loved the science for the sake of the science; Du Bois, the oracle of French midwifery; Kiwisch, Bauer and Schroeder, who are

worthy successors of Saxtorph, with his memoirs; Stein, with his art of obstetrics; Stark, with his archives; Zeller, with his observations, and Studell with his treatises; Denman, with his spontaneous evolution, starting as he did as health officer of a vessel, ending as the great authority of England; Simpson, the earnest, the original and the gifted student, the discoverer who sought and found for suffering humanity in its sorest need a foretaste of the peace of heaven. He rose from the obscurity of a country village to be the favorite of his sovereign, the peer of the highest literary and scientific authorities, the cynosure of the medical and surgical intellect of the century. Next, Tyler Smith, the classical orator, who made even the dry bones of the pelvis to bloom with beauty, who entertainingly told what he knew, and knew what he told; Dewees, one of the fathers of American obstetrics, the nervous and energetic, exemplifying thoroughly and practically the doctrines of French obstetricians; James, the first professor of obstetrics in this country, the erudite and polished instructor, who gave currency to the teachings of British schools; Bard, who published the first original treatise on midwifery in the United States. Hodge, that old scholar and Christian gentleman, who has added not only to our literature, but has given us the brightest bloom of his ample experience and fertile brain. Leishman, the Scotchman; Playfair, the royal obstetrician; and last, but not least, Barker, that scholarly gentleman who was so fitly called to London as our representative obstetrician, who has given us that gem of clinical lectures in his work on Puerperal Diseases. In my list I have omitted, with a purpose, but without disrespect, the names of Mesdames Lachapelle and Boivin. Velpeau says of them, although the pupils of Baudelocque, they were not afraid to shake off to a certain extent the yoke of his scientific authority, and their position and dignity form the starting point of a new era. Their researches upon the structure of the uterus, the great work by the one on the diseases of the womb, the twelve mem-

oirs contained in the three volumes of the other, place them high in the list of distinguished characters, as viewed from a historical point. I wish their mantle could fall upon the shoulders of their sisters in the present generation. But here I must stop; of these two alone do I make exceptions. If men had been in charge of obstetrics, and the world free from an old prejudice, our obstetrical history would have been far different, our heraldry would have been resplendent; no dial of two thousand years would have stood unmarked by the progress of midwifery. The history of midwifery will in vain be searched to find a single instance recorded, or a practical discovery made, by the class we now know as midwives. Woman has her sphere, and in such she has the respect and admiration of all. The boundary of her sphere is so fixed that when she goes beyond she is but a fallen star. The composition of her intellectual faculties does not include invention or the finer points of scientific advancement. In music, she brings the sweetness of her voice and the beauty of her touch; but she does not belong to the class of great composers. Her household duties she performs with a care no one else can equal; she sheds upon each comfort a ray that makes it an essential part of home; she sends forth into every-day duties an influence which refines the world; yet, with all her household cares, which she arranges with a woman's taste, the broom with which she sweeps, the duster with which she dusts, the stove upon which she cooks, the needle and thread with which she sews, the machine with which she stitches, the instrument upon which she plays, all are the gifts to her of man's ingenuity.

Gentlemen, study well the mechanism of labor—men who have been truly great in the science of obstetrics have been truly great in this essential portion. If you desire to know what leading obstetricians have thought on the study of obstetrics and the mechanism of labor, listen to the echo which comes from their works. The science of obstetrics is the ensemble of knowledge relative to the reproduction

of the human species. It is not a science such as Leroy stated, that one could explain on the back of a playing card, it is one of the most important and positive branches of medicine. The mechanism of labor is the vital forces acting in perfect harmony with the laws of mechanics, the wonderful adaptation to insure the object to be accomplished; its principles are sure, all its operations may be carried on in a manner to a geometrical certainty; these same principles give to the resources which science employs a degree of precision which causes it to approach in certainty the mathematical sciences. Its study cannot be neglected. The necessity of accurate information will not be questioned by those who have had experience in tedious and difficult labors. It is a knowledge which alone can furnish correct principles for your guidance. Perfect acquaintance with its details in all their minutiae is the real foundation of scientific midwifery. An accoucheur well acquainted with the mechanism of labor can diminish the anxieties, the sufferings and dangers of the parturient woman, and augment the chances in favor of the safety of her infant; while he who is ignorant of it, whatever be his skill or experience, must either allow his delicate and anxious patient to work out her own delivery by protracted and continued suffering, or must operate, if assistance be deemed necessary, at the greatest possible risk to mother and child. In the whole range of obstetric science there is no topic more worthy of profound study, none certainly which involves more deeply the lives of both mother and child. It is the alphabet of obstetrics, and dominates the whole scientific practice of midwifery. It is the keystone of the arch of obstetrics; without it the practice of midwifery is a mere handicraft, and is wholly unworthy the dignity of a science; without it you are on a par with an uneducated midwife. It is not a sad plaything like many speculative systems in our profession, and Naegele's Euclid of obstetrics will not have accomplished its mission until every accoucheur in each individual coming before him entirely

masters the fetal head. Nothing less than this should be arrived at by every obstetric practitioner; and it is a lamentable fact that such sayings of our brilliant men, who have furnished such glorious monuments of the human intellect, should go for naught, and that students leave their schools more ignorant of the mechanism of labor than any other portion of the branch; and we can re-echo to-day the cry of Simpson, which was the echo of Denman's affirmation, that there are few departments in midwifery in which the practitioner entertains more loose and more incorrect ideas, and that natural labor is the last thing studied.

In conclusion, gentlemen, allow me to congratulate you upon the era at which you are entering the study of this subject. Wonderful and gratifying progress has been made; the days of superstition have passed; no longer is the butcher required to remain in the adjoining room, to have in readiness the warm skin of an animal to be laid over the patient's abdomen. No longer will women run the risk of the occurrence which befel Mary Anne, of Bavaria, when she gave birth to Louis, Duke of Burgundy, namely, have the skinned animal walk into the room and up to the bedside of the patient. Your sphere shall be in the lying-in room. Be there not as an idle spectator, but watch, well armed with all the professional armament to protect the system from harm while in its throes of labor. Allow no ill to befall that which is about to breathe the breath of life. So manage the scene that the character on the stage shall not suffer, or make her exit in causing another character to enter. It is a position in which you will be placed where ignorance is a crime, officious effort ignorantly bestowed is criminal, but the inaction of ignorance is infanticide and often is matricide. In this branch of your profession you must be obstetricians. Stand near—time to study authorities neglected during your course will not be given you. The crisis is at hand, and if you fail there is no redemption. Know well the presentation and position. Know

when to assist and when to desist. Have your instruments well in hand, and, above all, have your hands well tutored to their use. Be not forward, but let no false modesty check—a life is in jeopardy, and a life the wager.

MORBID MUSCULAR CONTRACTION.

BY L. A. MERRIAM, M. D., OMAHA, NEB.

THE simplest phase of muscular contraction is that seen in the protozoa as a change in the form of the body due to the contractility of its protoplasm. In the process of development this protoplasm changes into a dermo-muscular layer or ectoderm, which is the lowest and most general of all muscular structures. Further differentiation develops the circular and longitudinal muscular fibers, as in the acalephs and vermes. The study of the higher orders of animals, as in the vertebrata, shows that differentiation gives rise to a number of systems of muscles, known as the muscles of the trunk, of the head, of the upper and lower extremities. The subvertebral muscles lying below the vertebræ and their lateral processes, and within the thorax, constitute one group of general muscles within the central portion of the body. Of these the diaphragm is the chief. The muscles of the trunk are separated into two divisions, known as the right and left lateral trunk muscles. The muscles of the cephalic skeleton passing up each side of the neck constitute another group, while those of the right and left upper and right and left lower extremities constitute other principal groups, each series having its base at the trunk and composed of the earlier developed and more general muscles, and its apex at the periphery and composed of the muscles later in the process of development and more specialized in their functions. Thus, for instance, one series passes through but-

tock, thigh, leg and foot to the toes, the muscles of the toes forming the apex or highest order of this series. Another series passes through shoulder, arm, forearm and hand to the fingers, the muscles of the fingers forming the apex and the highest order of this series.

Another series passes up each side of the neck and bifurcating has two topmost orders, one at the eye and the other at the mouth, the point of the eye being the higher of the two.

Bearing in mind these preliminary anatomical facts, let us recall certain well known physiological conditions bearing upon the subject. Every part of the nervous system is every instant traversed by waves of molecular change, in some parts strong, in others feeble, here arising from pressure, there from touch, in this place produced by sound, and in that by light, at one part by muscular strain and at another by heat, or cold, or some other condition. Every repetition of an impression works unseen changes in the structure of the nerve of such a nature that waves of like character pass through with increasing facility, hence the increased liability to the recurrence of convulsions when they are permitted to repeat themselves. Diminished pressure, as in losses of blood and great anemia, is another condition whereby resistance to the passage of the molecular wave may be lessened, hence ordinary impressions carried to the centers with unusual facility may produce extraordinary motor results. The same thing is largely true of the peripheral nervous system, as is instanced by the afferent nerves of individuals who, though otherwise healthy and having lax tissues, are often unduly impressible; and Bastian says that an arm rendered anemic by unnatural constriction of its arteries, and beginning to atrophy, may nevertheless have its afferent nerves affected by electric discharges in an unusual degree. Increased heat of the body is another condition whereby resistance to nervous action is lessened, as may be seen in the tendency to convulsions in children when high temperature is present,

as in fevers. The converse fact is seen in the stupor of hibernating animals, and in the tendency to sleep when subjected to prolonged exposure to severe cold. Having seen some of the conditions on which increased nerve action depends, let us examine the accumulation and discharge of nervous force. That expenditure of nerve force is greater during the day and active labor than the amount generated, and that repair and accumulation of nerve force takes place at night when at rest, is well known. In other words, there is an amount of nervous energy stored up at one time from which the supply is drawn at another. This is seen in the morning yawn, when the undirected motor discharge produces an involuntary stretching of the muscles of the whole body.

This curious property the nerve elements have of storing up energy, or of remaining for a longer or shorter time in the state of vibration into which they have been thrown by the arrival of external excitations, has been termed by Luys phosphorescence, from the analogy that exists between it and the storing up of rays of light by phosphorescent bodies.

Imperfect as the analogy and name may be, yet it may serve as a stepping stone to something better.

When this accumulation of nerve force is suddenly discharged we get the phenomena of morbid muscular contraction, which are classed as: 1st. Tonic convulsions, so named from their continuous nature. 2nd. Clonic convulsions, characterized by their intermittent contractions.

A yawn may be taken as a simple illustration of the tonic, and the chattering of the teeth in a chill as an illustration of the clonic form of spasm. Dr. Hughlings-Jackson long ago pointed out the fact that convulsions always begin at the base or apex of a series of muscles, never in the middle. Convulsions usually begin at the apex of one of these muscular cones and pass to the base, as beginning at the fingers, toes or eyes, and passing to the center of the body. While this is a general rule it is not always true,

for in some forms of idiopathic epilepsy, in the spasms of tetanus and of strychnia poisoning, they begin and are generally confined to the most general of all the voluntary muscles. This is seen in a case of rigor, which is an epilepsy of the vaso-motor system and its allies. This assertion, that a rigor and an epileptic fit are pathologically allied, is not a mere assumption, for it is well known that the specific fevers and malarial fevers which in the adult are ushered in by a chill are in the child frequently heralded by a convulsion, which takes the place of the rigor. Tonic convulsions are of two classes; those beginning at the apex and ending at the base are called centripetal, and those beginning at the base and ending at the apex or periphery are called centrifugal. Tonic convulsions, whether centripetal or centrifugal, are always bilateral, or involving simultaneously both sides of the body, and in every case produce an attitude of extension. Clonic convulsions are either centripetal or centrifugal. When clonic convulsions are centrifugal, moving in their march from base to apex, they are always bilateral and produce an attitude of extension. Thus we see that all tonic convulsions, whether centrifugal or centripetal, and all clonic convulsions of centrifugal march, are bilateral and produce the phenomena of extension. This leaves, then, one other class, viz., clonic centripetal convulsions, which form by far the largest and most varied group of these phenomena, and include nearly the whole of the so-called epileptic, epileptoid and epileptiform convulsions. These clonic centripetal convulsions are always unilateral in their origin and invariably produce an attitude of flexion. The march of these convulsions is in the following order: Beginning in the thumb and fingers of either hand, or in either side of the mouth or eye, the progress of the convulsion is toward the center of the body, the various muscles in their course being involved in their order. When the base is reached, the convulsion next affects the opposite side of the face, the opposite hand and the toes on the same side, the march continuing from these

points to the base of their respective cones or the center of the body ; and lastly the toes, foot, leg and thigh of the opposite side are convulsed, the convulsion ending at the center of the body or base of the several cones. This order is not invariably followed, the march in some cases being irregular or so rapid that its progress cannot be followed, while occasionally the part first affected can be seen to be the last released. The centrifugal convulsions, beginning as they do at the center, and in the lowest order of muscles, spread next to the higher order of muscles, affecting simultaneously the two sides and extremities. That is to say, beginning in the muscles of the back, the spasm spreads simultaneously to the thighs, the upper arms and the jaws; the head is thrown back, the trunk is arched backwards, the arms are extended by the sides, the thighs, knees and ankles are extended, and the toes flexed. The convulsions of tetanus, strychnia poisoning and of cerebro-spinal meningitis are of this character. The rapidity of a convulsion is often so great that the convulsion appears to affect the whole body suddenly and simultaneously, hence arises the great difficulty of observing accurately the progress or march of the convulsion. In some cases, however, the march of the convulsion occupies two or three minutes or more. In these cases of slow progress gross structural disease of the brain usually exists, and it may be said with much truth that the more deliberate the march the coarser the structural alteration, and the converse is equally true, that very rapid fits, as in idiopathic epilepsy, etc., the change in brain tissue is so fine as to present no recognizable structural alteration. Though many unanswerable questions present themselves in studying morbid muscular contractions, yet it may, we think, be safely said they are due to a local discharge of nervous force concentrated in some one direction, because of increased resistance to its general discharge, and of diminished resistance to its local discharge; or it is a sudden excessive and rapid discharge of nerve force due to an ex-

cessive generation of nerve force from abnormal nourishment of some portion of the nerve centers, preferably the medulla oblongata, in which has been located the so-called convulsion center.

INCREASE OF THE NEGRO POPULATION.—Professor E. W. Gilliam, writing upon "The African in the United States," refers to the increase of the negro population as follows:

The absence of thrift, energy and management, many think, marks negro character at its best. It is certain that the contraries to these qualities had, under a long condition of servitude, been abnormally developed. Emancipation found the negro without the master's care (and, as a body, slaveholders, at least from motives of self-interest, were humane), without the customary oversight and medical attention, dependent, not self-reliant. No wonder that many of the negroes have been worse off than under their former bondage; that the burden of life has been so often excessive; that infanticide has been so often resorted to to lessen it; that death from want and exposure has been so exceptionally frequent. A body of four million slaves, ignorant, uncivilized, and trained in habits of dependence, suddenly set free, then invested with the ballot, and intoxicated with political power, then checked, and in many instances violently checked, by the necessary and wholesome self-assertion of the white race, that they should have increased as they have done is astonishing, and can be accounted for only by the remarkable fecundity of the African. For the future, the adverse influence to population, arising from this cause, will become less and less potent. The negro, adjusted to his surroundings, will work with more ease and effect. He is ascending from the lowest round. Education must give him increased power to accumulate, experience must improve his thrift, and, life passing under better conditions, it is reasonable to think that in subsequent decades he will add five per cent. of increase to that of the past. We put this rate at thirty-five per cent.—*Popular Science Monthly*, Feb., 1883.

CASES FROM PRACTICE.

MISSOURI MEDICAL COLLEGE DISPENSARY. MEDICAL DEPARTMENT.

[SERVICE OF J. STEER, M. D.—REPORTED BY F. C. AMEISS, ASSISTANT.]

CASE I. STOMATITIS.

Mrs. McN——, 40 years of age, was at this clinic one year ago, having the same complaint as at this time. Her lips are swollen and inflamed, and, presumably, the whole alimentary tract as far as the stomach is in a similar condition. She complains of pain and difficulty in swallowing solids and fluids; especially much pain is caused by sour and sweet substances, hot and cold liquids. As she speaks, the saliva dribbles from the angles of her mouth, and she states that the same occurs during the night while asleep. She complains of much heart-burn and nausea after meals, and experiences tenderness on pressure over epigastric region. Her bowels are regular, and her appetite is fair, but she does not relish what she eats, as there is "no taste to it."

Her breath has a sour and slightly offensive odor. Her temperature and pulse are about normal, there being only a slight febrile reaction. The parotid, submaxillary, and sublingual glands are enlarged and sensitive to pressure.

On inspection, the whole inside of the mouth is found red, swollen and tender. On the tongue there are several small ulcers, which were at once touched with a stick of nitrate of silver.

Internally she received ten grains of saccharated pepsin every three hours. After a week, she returned to clinic much improved. She was told to continue taking same powders (pepsin) every four hours for another week, at the termination of which she was discharged cured.

REMARKS: Stomatitis is a rare affection in adult life; but when it occurs, it is generally of severe type. It was brought

on in this case, undoubtedly, by a gastric derangement, as pepsin was the only remedy resorted to at both occasions, and was followed each time by a rapid improvement. The patient is a stout, strong lady, not at all anemic. I mention this, as the subjects attacked by this disease are said to be generally weak and debilitated.

CASE II. FACIAL PARALYSIS.

Martin J—, æt. 32 years, occupation, out-door laborer, went to bed in perfect health, and on awakening the next morning found himself in following condition: After washing and dressing, he noticed that he could not close his left eye; when combing his hair, he found the left side of his face drawn towards the right, the tears running from his left eye down his cheek, and the left angle of mouth hanging lower down than the right.

He applied at clinic on same day. It was ascertained that he slept in preceding night near a window in which a pane of glass was broken, the draught of air striking his body, according to his statement, but probably struck his head more than his body.

Aside from the paralysis of the orbicularis palpebrarum and orbicularis oris, the effects of which he described himself, there was also noticed an escape of saliva on the affected side of mouth when patient would speak, and he states that when he drinks, a portion of the fluid runs out from that side of the mouth. His articulation is complete. When requested, he could not whistle. The food, while eating, would accumulate on left side of mouth, between teeth and cheek, and he could not shift it to the other side, but had to use his fingers for this purpose, to his great mortification. The left side of his forehead is smooth and motionless; in fact, the whole left side of his face is a perfect blank, while the muscles of the right side act in excess. This gives to the features a very peculiar aspect, especially when the muscles are brought into action, as in laughing, etc. The sense of taste is normal; there is no deviation of tongue; no paralysis of uvula, nor of velum palati. Both Faradic and Galvanic excitability of paralyzed muscles are preserved.

TREATMENT: A pill containing $\frac{1}{60}$ gr. sulphate of strychnia was given three times a day. But the main part of the treat-

ment consisted in the application of electricity. A weak and slowly interrupted Galvanic current was used, just strong enough to produce contraction of the paralyzed muscles. The anode was placed on the mastoid process, while the cathode was applied in turn to the affected muscles. A daily application, lasting from three to five minutes, was used for three weeks, and effected complete restoration to health.

REMARKS: As there were no cerebral symptoms whatsoever present, it is certain that this was a simple case of peripheral facial paralysis. The nerve was affected after passing out of the stylo-mastoid foramen. It is worthy of note that improvement followed immediately on application of electricity, and soon brought about a cure.

PUERPERAL CONVULSIONS.

BY F. E. ASBURY, M. D., AUMAN'S HILL, N. C.

Mrs. C——, æt. 40 years, was delivered of her sixth child in August, 1882, by a midwife. Everything was supposed to be right, and, after the usual directions, her nurse left her. On the second day after delivery, she complained of fullness and tension in the pelvis, and some pain and uneasiness over the hypogastric region; the lochia ceased, and fever began to appear. The midwife was sent for, and gave her a variety of teas, and applied warm fomentations to the abdomen, which had continued to become more tender and tense. Soon after midnight the fever increased, her head began to ache, and she grew restless, and soon convulsions made their appearance. These increased in violence until about 10 A. M. of the third day after delivery, when I saw her. I found her complaining of her head and left shoulder. Her arm could scarcely be moved without great pain; skin very hot and dry; pulse, 130, full and resisting; lochia suppressed; abdomen full and somewhat tender; conjunctivæ injected; eyes vacant and wild; the convulsions occurring at intervals of about forty minutes. I took about sixteen ounces of blood, and gave the following: R. Hydrarg. submuriat., grs. x; quiniæ sulph., grs. xii; applied cold applications to the head, and used a vaginal injec-

tion, composed of sweet milk, with fifteen drops of aqua ammoniæ to the half ounce of milk; repeated at intervals of two hours. She had but two convulsions after the bleeding and the compound doses as given above; and in two hours her pulse had gone down to 90 per minute. She was calm, slept some, and was perspiring. I repeated the quinine at intervals of two hours, in four grain doses. Her bowels were well evacuated during the day. I continued the quinine for twelve hours, after which I gave muriated tincture of iron. She recovered, though a slight hectic fever lasted for twelve days.

I mention this case more particularly to show the sedative action of quinine, which invariably follows venesection; also, to note the metastasis of inflammatory action from the pelvic peritoneum to the shoulder and head.

In all such cases the lancet should be used; it cannot be omitted without risk to the patient; but it will not do to rely on venesection alone. We must have a sedative, and prominent among these is quinine.

In our country, eclampsia has not occurred oftener than once in every one hundred parturients, and two-thirds of them are with the primipara.

THE Editors of the *American Journal of Otology* announce the suspension of the publication of that journal until further notice.

KANSAS MEDICAL INDEX AND MISSOURI VALLEY MEDICAL JOURNAL.—We were guilty of an unintentional act of injustice to an editorial brother and to his journal, in stating last month that the *St. Joseph Medical Herald* was the successor of the *Missouri Valley Medical Journal*. The latter journal has not been discontinued at all, but having been established by Dr. W. C. Boteler, and principally carried on by him during the last year, has now been united with the *Kansas Medical Index*, and is published simultaneously at St. Joseph and Fort Scott. The *St. Joseph Medical Herald* is a new enterprise started by Drs. Geiger and Hoyt, who were associated with Dr. Boteler in his journal during a part of last year.

EDITORIAL.

BACILLI AND BACILLI.

In our last number we referred to the paper of Dr. Schmidt, who claims to have demonstrated that Koch's bacilli tuberculosis are simply fat crystals developed in the tissues. A careful reading of this article does not convince one that the claims of the author are fully warranted, and skillful microscopists claim that his crystals and Koch's bacilli are not the same at all. As yet we are forced to take the position, with reference to both these theories, assumed by the Scotch jury who rendered a verdict—not proven.

In the meantime medical literature is teeming with articles upon all forms of bacteria and bacilli from investigators and authors who accept, and those who deny, their active agency in the causation of disease.

Dr. Geo. M. Sternberg, one of our most painstaking and accurate investigators, contributes to the *Medical News* a paper on the micrococcus of gonorrheal pus, in which he denies that the infective virulence of this discharge is due to the presence of this parasite. He says: The micrococcus which I have found in a certain number of the pus-cells in every specimen of gonorrheal pus examined by me is an accidental parasite which has nothing to do with the special virulence of this fluid; and a careful search with a first-class objective, and by the use of staining reagents, has not revealed the presence in this fluid of any other micro-organism than this micrococcus.

He finds that the micrococcus of gonorrheal pus is identical with the micrococcus ureæ of Cohn, which Pasteur has shown to be the cause of the alkaline fermentation of urine.

With regard to the bacillus lepræ, which has been said to be the essential cause of leprosy, all those who have investi-

gated the subject recognize the occurrence of this micro-organism in the tuberculous form of the disease wherever the leprous products are found. Some observers claim to have observed the same structures, which are quite characteristic in their appearance, in the blood of leprous patients; others have failed to do so. None of the experiments for the purpose of developing the disease in the inferior animals by inoculation have been successful, and therefore, while it is probable that this bacillus is really the cause of the disease, the absolute demonstration of it is yet lacking.

The most recent suggestion we have seen in regard to the nature of bacilli is that of Dr. William Hunt, who, in an address before the Philadelphia Academy of Surgery, January 8, suggests that they may be scavengers, consumers of dead material, and serving a good purpose so long as they do not accumulate unduly. In his own words: "Molecular death is going on continuously in all living tissues. In the nice balance of perfect health the results are removed so completely through the blood and lymph-channels (so beautifully described by Formad), and by other means, that there is no accumulation. When, however, disturbances arise, as inflammations for example, from any cause, abundant *necrotic* products are the consequence, and these accumulate faster than they can be removed. Then come in the migratory micro-organisms. It is a question of food, and is consonant with what we know of the movements of hosts of higher animals, possibly also of plants, and sometimes of man himself. As these organisms get into the wrong places, they, accumulating with great rapidity, help to choke further and irritate what has already started on an evil course, and so they become secondary and very fruitful causes of disease."

He does not think there is any positive proof that these organisms are specific and primary in their action at all.

He closes this part of his address by formulating his belief

in the form of an epigram, following the example of Formad and Koch, whose epigrams he cites. The former says: "No inflammation, no tubercle;" the latter says: "No bacillus, no tubercle." Hunt says: "No micro-necrosis, no micro-maggots," which he explains as meaning that "food, mostly in the form of necrotic products, precedes the advent of the micro-organisms, however these may originate, whether animal or vegetable; and in disease these necrotic products first, plus the organisms second, play havoc with their environment."

And so one and another advances a different theory, and the medical world is in a ferment, like some of the culture fluids in which the bacilli are developing so rapidly. But as the latter clears and becomes transparent after a time, so we may expect that after a time we shall reach a clear and satisfactory conclusion as to the true explanation of the various phenomena which now seem so contradictory and unexplainable.

REJECTED MEDICAL COLLEGES.—The following medical colleges are not recognized by the Illinois Board of Health:

American Eclectic Medical College, Cincinnati, Ohio.

American Health College, Cincinnati, O.

American University, Philadelphia, Pa.

College of Physicians and Surgeons, Buffalo, N. Y.

College of Physicians and Surgeons, Joplin, Mo.

Edinburg University, Chicago, St. Louis and elsewhere.

Hygeo-Therapeutic College, Bergen Heights, N. J.

Eclectic Medical College of Pennsylvania (late issues).

Joplin Medical College, Joplin, Mo.

Livingston University, Haddenfield, N. J.

New England University of Arts and Science, Boston, Mass., and Manchester, N. H.

Northwestern Medical College, St. Joseph, Mo.

Penn. Medical University, Philadelphia, Pa.

Philadelphia University of Med. and Surg., Philadelphia, Pa.

Physio-Eclectic Medical College, Cincinnati, O.

Physio-Medical College, Cincinnati, O. (late issues).

St. Louis Eclectic Medical College, St. Louis, Mo.

St. Louis Homeopathic Med. Col., St. Louis, Mo.

BOOK REVIEWS AND NOTICES.

RHEUMATISM, GOUT AND SOME ALLIED DISORDERS. BY MORRIS LONGSTRETH, M. D., etc. *New York. Wm. Wood & Company, 8vo., pp. 280. Cloth. (Wood's Library.)*

This volume of Wood's Library is one that contains much of value to the general practitioner. It is a careful compilation of the results of modern study in this class of diseases. Eighteen chapters of the nineteen, which the book contains, are given to the discussion of rheumatism in its various forms, while only the last one is devoted to gout.

Perhaps the most valuable chapter of the volume is the fourth, in which Dr. Longstreth discusses the pathology of rheumatism, recounting the various theories and the arguments for and against them. Chapter III discusses the causes of rheumatism; chapter V consists of a description of the disease and its course; chapters VI and VII treat of individual symptoms; chapters VIII, IX and X consider the influence of the disease upon the skin, the genito-urinary apparatus and the urine; chapters XI, XII and XIII treat of the various complications of rheumatism. The morbid anatomy, diagnosis and prognosis, and treatment follow. Then two chapters are devoted to gonorrheal rheumatism, and finally one to gout.

There is nothing original in the volume, but it is a good summary of the various views as to cause, pathology and treatment of this common and distressing affection.

FOURTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. 8vo., pp. 213; paper.

To citizens of a state which has no State Board of Health, it is a matter that excites envy to look over such a report as that which comes to us from an immediately adjacent state, and see the immense work that is being done by the Illinois State Board of Health.

The success which attended the efforts of that Board of

Health is more than warrant sufficient for the maintenance of it, and saved thousands of dollars, besides many valuable lives to the state during the last year.

The account of the course adopted by the Board in regard to the licensing of medical practitioners, and the revocation of licenses for unprofessional conduct, again excites our envy, and urges us to new efforts to secure effective legislation in our own state. The course adopted by this board with reference to licensing of practitioners, as well as the recognition of medical colleges, has been judicious, temperate, and yet firm. The whole profession owes a debt of gratitude to the Illinois Board of Health, for the efficient work that has been done in showing up frauds and diploma mills.

Among the other items of interesting reading are found the lists of questions propounded for examination of physicians applying for licensure under the act regulating the practice of medicine.

The statistics with reference to the medical colleges of the United States and Canada are valuable for preservation and reference, as being the fullest and most complete statement of the status of these schools to be found anywhere.

The volume also contains the minutes of the third annual meeting of the Sanitary Council of the Mississippi Valley. Some of the addresses delivered before this council are not only able, but eloquent pleas for greater earnestness and more thoughtful attention to the claims of preventive medicine and sanitary science.

A SYSTEM OF SURGERY; Pathological, Diagnostic, Therapeutic and Operative. By SAMUEL D. GROSS, M. D., LL. D., etc. Illustrated by upwards of 1,600 engravings. Sixth edition, thoroughly revised and greatly improved. In two volumes, 8vo. Philadelphia; Henry C. Lea's Son & Co., 1882. Vol. I. pp. 1194; vol. II. pp. 1174.

This sixth edition of Gross' System of Surgery, "thoroughly revised and improved," is, I think, much the same as previous editions, and as it has been so long before the public it is not necessary to particularize either its defects or its points of excellence.

Modern surgery has developed so rapidly, and changed so materially in the last decade, that it is a difficult matter for one

man to cover the ground and do equal justice to all subjects. It gives us, I suppose, the last general expression of the views of a man who has worked long in the profession, and who has obtained much reputation as a surgeon. H. H. M.

ILLUSTRATED MEDICINE AND SURGERY. VOL. II., No. 1. 1883. Quarterly. *New York. E. B. Treat.*

This opening number for 1883 is fully equal to any of those of last year. There are nine articles, with thirty-four illustrations. Dental Development, by Wm. Hailes, Jr., M. D., has three chromo-lithographic illustrations. It is one of a series of articles that are to be given in successive numbers of the quarterly. Johnson Eliot relates a case of palato-pharyngeal sarcoma, which is accompanied by one illustration. Randolph Winslow has an account of an excision of the shoulder joint, with three wood-cuts, one showing the patient after the operation, the other representing the bones removed. Dr. James Little's paper on Compound Complicated Hair-lip has six arto-type illustrations of patients operated upon, and also a wood cut illustrating the operation, and another showing a deformed hand of one of the patients.

A fine chromo-lithograph accompanies Prof. Wm. Osler's case of myeloid disease of pleura and lungs. Dr. J. H. Pooley's paper on Congenital Union of the Fingers is illustrated with eleven wood-cuts.

A teratological contribution by Dr. Geo. J. Engelmann has three wood cut illustrations, and one wood-cut accompanies Dr. J. S. Wight's paper on Apparatus for Treating Fracture of the Patella. Altogether it is a very handsome and valuable number of the journal.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A systematic treatise on the theory and practice of surgery, by authors of various nations. Edited by JOHN ASHURST, JR., M. D., etc. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. II. *New York. William Wood & Company, 1882. Royal 8vo., pp. 754; sheep.*

The second volume of the International Encyclopædia of Surgery is, I think, fully up to the standard established by the first volume.

Dr. John Ashurst, the editor, adopted a very wise course in

soliciting help from men engaged in active and extensive practice in the various departments of surgery. He has been enabled in this way to get the results of the best practical work of modern surgery, and to obtain from men busy in their profession their best thoughts. The book is not a history of medicine, but is an exposition of the present status of surgery as appreciated by the various authors. Too many of our standard works in surgery have weakened their force and power by attempting to give a full history of the surgery of each special subject since the time of its first recognition, and have thus encumbered their pages with much that was useless, except to the student of the history of medicine. In the present volume we have some admirable articles, notably those of Hunter McGuire, M. D., on Contusions; and by Thomas Bryant, F. R. C. S., on Wounds; the latter being a very instructive and complete chapter.

In it we find also an article on ulcers, by the late John T. Hodgen, M. D. It is an important one, as it gives the result of his observation and practice in his usual terse and direct style.

The volume is a creditable one, and will, I hope, be soon succeeded by the remaining volumes that are promised.

H. H. MUDD.

THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA. Sixth Decennial Revision. By authority of the National Convention for revising the pharmacopœia, held at Washington A. D. 1880. *New York. Wm. Wood & Company. 1882. 8vo. pp. 488; cloth.*

The new edition of the pharmacopœia has now been in the hands of the profession for some weeks, and opportunity has been afforded for a fair estimate of the value of the revision. On the whole the verdict is, that the changes made were well made, and that the new edition is an improvement upon the old ones.

Ready reference is facilitated by the adoption of an alphabetical arrangement, and the abandonment of the old division into primary and secondary lists of drugs. Over two hundred articles have been omitted with little loss. About two hundred and fifty articles have been added, some of which might as well have been omitted.

The most notable change is the arrangement of the formulæ,

directing proportionate parts by weight instead of definite quantities as directed in former editions of the pharmacopœia.

We can see no advantage in that change of nomenclature by which quinia, cinchonidia and other alkaloids are to be called quinina, cinchonidina, etc.

These are among the more noteworthy changes in the book. The mechanical execution of the work is admirable.

WOOD'S LIBRARY OF STANDARD MEDICAL AUTHORS.

One of the notable features of the history of medical literature in these days, is the remarkable success of the several series of medical books published in form much cheaper than the same or similar books have ever been issued before.

Messrs. Wm. Wood & Company were first to issue such series of volumes, and "Wood's Library of Standard Medical Authors" has truly become standard, having now entered upon its fourth year with an increased number of subscribers each year. The library for 1883 will comprise the following volumes: Manual of Gynecology, by D. Berry Hart, M. D., F. R. C. P. E., and A. H. Barbour, M. A., B. S., etc. 2 volumes. Illustrated. Hand-book of Electro-therapeutics, by Dr. Wilhelm Erb. Illustrated. The Microscope and its Revelations, by Wm. B. Carpenter, C. B., M. D., etc. Sixth Edition. 2 vols. Illustrated. Diseases of the Esophagus, Nasal Cavities and Neck, by Morell Mackenzie, M. D., London. Illustrated. The Diseases of Women, by Heinrich Fritsch, M. D.; translated by Isidore Furst. Illustrated. The Treatment of Wounds, by Lewis S. Pilcher, A. M., M. D., Brooklyn. Illustrated. Hereditary Syphilis, by F. R. Sturgis, M. D. Illustrated. Legal Medicine, by Charles W. Tidy, M. B., F. C. S. Vols. III and IV. A Treatise on Veterinary Medicine, by F. O. Kirby. Illustrated.

MANUAL OF GYNECOLOGY, by D. BERRY HART, M. D., etc., and A. H. BARBOUR, M. A., M. B., etc. Vol. I, with eight plates and one hundred and ninety-two wood-cuts. *New York. Wm. Wood & Company. 1883. 8vo. pp. 313; cloth. (Wood's Library).*

Drs. Hart and Barbour have succeeded in preparing a work on gynecology which is destined to secure a prominent place in the literature of this subject, in spite of the fact that so

many works have been issued in this department during the last few years. The volume before us consists of two parts. Part 1, treats of the anatomy, physiology and method of examination of the female pelvic organs. Part 2, takes up the diseases of the female pelvic organs.

The anatomical descriptions are excellent, and the discussion of the true position of the uterus in the pelvic cavity is able and convincing, albeit they differ from the view of many prominent writers. Chapter V. deals with a subject which has not been noted specially in other works, viz.: the physics of the abdomen and pelvis, with special reference to the semiprone and genu-pectoral postures.

They aim to give not the views of one school, but to present the teachings of the French, German, English and Americans as well. In regard to the changes which take place in the uterine mucosa during menstruation, they favor the view of Kundrat and Engelmann, although they give in full the position of Williams and of Leopold.

They advocate the use of anesthetics, and preferably chloroform whenever a cutting operation is to be made, unless very slight.

Their instructions as to operative procedure are conservative and judicious. For example, they say in treating of Emmet's operation: "Like every new method in medicine and surgery, the operation has been performed in numbers of cases where it was not called for. * * * *

* * * * In the treatment of lacerations, as of many other uterine affections, skill may often be shown in knowing to leave the case alone rather than in operating."

They recommend continual irrigation in the performance of the operation, a measure which is certainly a most admirable, one, as we have repeatedly found.

If the second volume equals the first, the authors have given the profession a most valuable treatise.

The mechanical execution of the volume is superior to that presented in either of the former series of volumes of the Wood's Library.

BOOKS AND PAMPHLETS RECEIVED.

Practice of Gynecology in Ancient Times. By Edward W. Jenks, M. D., LL. D. Chicago, Ill. Rep. from *Gyn. Trans.*, Vol. VI. 1882.—Contribution to Surgical Gynecology. By Edward W. Jenks, M. D., LL. D. Chicago, Ill. Rep. from *Trans. Ill. State Med. Soc.*—Modified Listerism in Ovariectomy, with a Report of five Recent Operations. By Edward W. Jenks, M. D. Chicago, Ill. Rep. from *Mich. Med. News.*—Massage; its Mode of Application and its Effects. By Dr. Douglas Graham. Boston, Mass. Rep. from *Pop. Sci. Mo.*, Oct., 1882.—Prohibition vs. Personal Liberty. By Ahner M. Collins, A. M., M. D. John Burns, St. Louis, Mo. —General Paralysis. Philip Zenner, A. M., M. D. Cincinnati, O. Reprint from *Lanc. and Clin.*, Nov. 25th, '82.—Some Thoughts on Phthisis, and the Value of Laryngeal Symptoms in Diagnosis. By M. F. Coomes, M. D. Louisville, Ky. Rep. from *Archives of Laryngology*, Vol. III.—Analysis of Eight Thousand Cases of Skin Disease. By L. Duncan Bulkley, A. M., M. D. New York City. Rep. from *Archives of Dermatology*, Vol. III.—Water Gas Journal, Vol. I. No. 1.—Report of the Board of Trustees of the Arkansas State Lunatic Asylum. Little Rock, Ark., Jan., 1883,—How we Ought to Live. By Joseph F. Edwards, A. M., M. D. John Burns, St. Louis, Mo. 8vo. pp. 625.—Manual of Gynecology. By D. Berry Hart, M. D., F. R. C. P. E., etc., and A. H. Barbour, M. A., M. B., etc., Vol. I, with 8 plates and 192 wood-cuts. Wm. Wood & Co., New York. 8vo. pp. 313 (Wood's Library.)—On Prehistoric Trephining and Cranial Amulets. By Robert Fletcher, M. R. C. S., Eng., Act. Ass't Surg. U. S. A., Washington Government Printing Office.—Civilization not the cause of Toothache. An Essay by J. J. R. Patrick, D. D. S., Belleville, Ill. Read before Ill. State Dental Society, May 10, 1882.—The value of Graduated Pressure in the Treatment of Diseases of the Vagina, Uterus, Ovaries and other appendages. By Nathan Bozeman, M. D., New York. Reprint from the *Atlanta Medical Register*, Jan., 1883.—A case of Hemiplegia, with remarks on Secondary Degeneration of the Pyramidal Tracts. A Paper read before the Ohio State Medical Society, Jan. 14, 1883. By Philip Zenner, M. D., Cincinnati, O.—Experience of an Opium Eater During the Withdrawal of the Drug. By C. H. Hughes, M. D., St. Louis, Mo. Reprint from the *Alienist and Neurologist*.—The Therapeutic Value of Cephalic and Spinal Electrizations. By C. H. Hughes, M. D., St. Louis, Mo. Rep. from the *Alienist and Neurologist*.—The Rights of the Insane. By C. H. Hughes, M. D., St. Louis, Mo. Rep. from the *Alienist and Neurologist*.

TRANSLATIONS.

THE MEDICAL PROPERTIES OF IODOFORM.¹

BY PROF. HOFMOKL. —Translated by F. A. GLASGOW, M. D., St. Louis.

Prof. Hofmokl used iodoform on two hundred patients by the following different methods: as a powder, gauze, emulsion with glycerine and oil, with oil, in the form of rods, salves, plasters, and by the hypodermic injection of ethereal solutions.

After considering the results in all of these cases, he draws the following deductions:

1st. Iodoform is an excellent antiseptic medicament, and its application to wounds is painless.

2d. On account of its insolubility it is less applicable for complicated or irregular cavities.

3rd. It does not prevent the inception of erysipelas.

4th. It is not a specific against tubercular and scrofulous processes, and produces a favorable result only after the removal of the tuberculous material.

5th. It assists in the formation of granulations in fresh and clean wounds, but does not assist in the cicatrization.

6th. Very thin layers of iodoform do not prevent union by first intention.

7th. In pharyngeal and laryngeal diphtheria of children, iodoform acts no better than other antiseptics.

8th. In wounds and ulcers of the oval cavity, of the rectum, vagina, and in exposed wounds of the bones, the application of iodoform by means of gauze is especially suitable.

9th. Injections of the ethereal solution are very painful, but should be tried when all other means fail.

10th. It is often useful in goitre (soft) and enlargement of lymphatic glands.

11th. It is deleterious in large doses, but is well borne.

12th. Childhood is no contra-indication to its use.

¹From a paper read before the Wiener K. K. Gesellschaft der Aertze.

13th. Previous irrigation of carbolized wounds with carbolized water does no harm, but is unnecessary.

14th. The healing of scrofulous and tuberculous ulcers under iodoform does not prevent a return of the disease.

15th. Iodoform is excellent for deodorizing necrotic neoplasms.

16th. Occasional syringing of suppurating cavities with iodoform emulsion acts favorably on the quantity and quality of the pus formed.

17th. The introduction of iodoform pencils into the urethra and bladder relieves the pain in vesical cramp, and delays the decomposition of the urine.

THE EFFECT OF IODIUM SALICYLATE UPON THE CIRCULATION.

BY PROF. ED. MARAGLIANO, GENOA.

The question, how preparations of salicylic acid act upon the heart, is not yet solved, and contradictory results have been obtained in experiment. According to some the activity of the heart is increased; others maintain that it is weakened—*vid.* the chapter by Liebermeister in Ziemssen's work, also writings of a number of others.

Liebermeister declares for a depressing effect, since he declines to prescribe it to those suffering from cardiac feebleness.

To throw more light upon this subject, I have conducted three series of investigations.

First: Sodium salicylate was prescribed in some cases during several days, and the pulse curve was noted mornings and evenings before the administration, during and after it.

Second series: The curve was noted before and after single doses, 5 grams (77 grains).

Third: The arterial pressure was observed after Basch's method before and after single doses of 5 grams.

The results were: 1st. By the administration of increased doses, a progressive strengthening of the pulse and a corresponding elevation of the systolic curve.

2nd. After a single dose there was increased force of the pulse one hour later, which reached its maximum in two to three hours, and disappeared after three to five hours. The normal diastole was generally accented. Sometimes the pulse was trirotic.

3rd. The intra-arterial pressure rose about one hour after taking a single large dose, and became normal about three hours later. The increase varied 10—20 mm. (one-third to two-thirds inches) of the mercurial column.

These results point conclusively to a strengthening of the heart's action.—*Centralblatt f. Med. Wiss.*, No. 48, 1882.

LOCALIZATION OF INTESTINAL CATARRH.

CLINIC FOR DISEASES OF THE INTESTINES.—NOTHNAGEL.

What conclusions may be drawn from the condition of the fecal evacuations?

Presence of mucus: Evacuation of clear mucus does not indicate a catarrh of the rectum only; the sigmoid flexure and the lower part of the descending colon may also be involved. When solid lumps of fecal matter are enveloped in the mucus, the inflammation extends up to the splenic flexure of the colon; the investment of mucus may be absent, however, if the lumps are but small. Under such conditions, chronic catarrh of the lowest section of the gut should not be excluded without further investigation. The presence of microscopic hyaline mucous granules, intimately mixed with solid or doughy feces, without visible mucus, characterizes catarrh of the upper colon without participation of the lower portion. When with catarrh of the whole colic tract the dejections are for some reason thinner, there will be found intimately mingled small shreds of mucus; but these will be visible to the unaided eye. Thorough mixture of feces with portions of mucus shows not only the existence of catarrh of the upper colon, but also of the inferior small intestine. Small, yellow granules of mucus declare an affection of the small intestine.

Biliary coloring matter: If typical reaction, upon application

of tests for bile pigments, are observed in the evacuations, we can infer a pathological activity of peristalsis in the whole colon and lower small intestine, and according to the condition of the pigmented portion an increased peristalsis or catarrh of the latter. Rarely does the evacuation give the reaction in all portions, for the most part the pigment adheres in the superficial lying masses of mucus, or in the yellow mucous granules or cylinder epithelium; in such cases there is always a catarrh of the ileum or jejunum, together with increased peristalsis of the entire gut.

Undigested food: When there is no fever, but other symptoms clearly pointing to catarrh, and particles of muscular tissue are present in the evacuations in abnormal abundance, there is probably catarrh of the small intestines; so also when starch is present. Catarrhs but slightly affect the absorption of fat; hence should noticeable quantities appear in the feces, there is marked exaggeration of peristalsis.

Auscultation and percussion afford but little aid in localizing intestinal catarrh, Palpation is somewhat more efficacious, especially when gurgling can be elicited in such tracts as should contain solid or at least semi-solid matters.—*Centralblatt f. Med. Wiss.*, No. 51, 1882.

LIGATION OF BOTH ARTERIES OF THE FOREARM.

BY DR. TH. KOELLIKER, LEIPZIG.

A sarcoma had grown upon and around the radial side of the hand, reaching both on the dorsal and palmar aspect to the ulnar border of the third metacarpal, and including the thumb. At a point over the thumb metacarpal the tumor had perforated the skin and frequently bled, on account of which it was determined to operate.

A dorsal skin-flap was made, springing from over the third metacarpal, and the tumor removed, exposing the extensor tendons. With difficulty it was removed from the volar region, both palmar arches receiving several incisions. Es-march's bandage had been applied, and upon its removal such

a violent hemorrhage followed that the ligation of both ulnar and radial arteries was decided upon; this was done at the wrist-joint. Drainage was provided for, the flaps stitched, and an antiseptic compress applied. The arm was fixed in a vertical position.

There was no secondary hemorrhage, but on the sixth day the edge of the volar flap necrosed, and half of the larger dorsal flap, with consequent death of the exposed short extensor tendons of the thumb. On the ninth day, the tip and volar side of the first finger became gangrenous; the finger, however, was preserved. Five and a half months after the operation the patient is able to use the hand in light work.—*Berlin. Klin. Woch.*, No. 49, 1882.

AN ARMY MEDICAL BOARD has been ordered to assemble at the Army Building, corner of Houston and Greene Streets, New York City, New York, March 1, 1883, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the Army, and will probably continue in session about three months.

All candidates for appointment in the Medical Corps must apply to the Secretary of War for an invitation to appear for examination. The application must be in the handwriting of the applicant, must state date and place of his birth, and place and state of which he is a permanent resident, and must be accompanied by certificates based on personal acquaintance from at least two persons of repute as to citizenship, character and moral habits; testimonials as to professional standing from Professors of the Medical College at which they graduated, should also accompany the application if they can be obtained. The candidate must be between 21 and 28 years of age (without any exceptions), and a graduate of a Regular Medical College, evidence of which, his Diploma, must be submitted to the Board.

Further information regarding these examinations and the nature thereof, can be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

Nitrate of Pilocarpin in Salivation of Pregnancy.—DR. DAVEZAC states that he has successfully used the nitrate of pilocarpin in the treatment of the profuse salivation of pregnancy.—*Gaillard's Journal—Revue Méd.*

Prolonged Gestation.—DR. E. M. REID relates the case of a patient who bore a child after a gestation lasting 295 days at least. Circumstances were such that the parents were separated during that period previous to the death of the child. Dr. Reid is of the opinion that the prolongation of the gestation was produced by the fact that in its course the patient had several copious hemorrhages, viz., on the 177th, 183rd, 189th, and on the 213th day another very profuse hemorrhage took place.—*Md. Med. Jour.*, Dec. 15th, '82.

Maternal Impression.—DR. WM. T. TAYLOR states that Oct. 16, 1882, a delicate, nervous Irish woman bore a child perfectly well formed in every respect except that there was no prepuce, and the penis appeared as if circumcision had been performed. The mother stated that during the early months of her pregnancy she had seen one child pulling violently at the penis of another younger one. Fearing that the organ might be torn off or seriously injured she turned away, feeling quite sick. She believed that this was the cause of the mark upon her child.—*Phil. Med. Times*, Dec. 2, '82.

Hydatidiform Disease of the Chorion.—MR. EDWARD STEPHENS, M. R. C. S., of Ilminster, writes: "On September 7th, I was sent for by a midwife to attend Mrs. C., who

was flooding. On my arrival the hemorrhage had stopped. On making an examination, the uterine sheath was not sufficiently dilated to be able to ascertain its contents. On passing my hand over the abdomen, I remarked to the midwife, how unusually circular it was. On the following afternoon I was again hastily summoned, and found the woman had lost much blood. On making an examination, I found that, by a little maneuvering, I could insert my hand into the uterus; and I vividly remember how astonished the midwife and Mrs. C. looked when I informed them it contained no child. In fact, Mrs. C. stoutly declared that she had felt the child many times; and that, being the mother of thirteen children, all living, she ought not to have been mistaken. After administering a full dose of ergot, some sharp uterine pains followed—soon expelling a mass, which, when collected, filled three ordinary-sized chamber utensils. After this jelly-like mass had been expelled, she rapidly recovered.”—*British Medical Jour.*

Persistent Salivation.—H. W. LONGYEAR reports the case of a woman, aged thirty-two years, the mother of four children, and the subject of several miscarriages. She had had several attacks of severe illness, in which it had been necessary to administer hypodermic injections of morphia repeatedly for a considerable time. The morphia was combined with atropia. After having had an attack of diphtheria, which lasted for two weeks, she began to be annoyed during the day by profuse salivation, which generally ceased at night when the patient retired. The combination of morphia and atropia relieved the symptoms temporarily, and was used for this purpose twice in the first five days. On the sixth day a miscarriage took place. After this the salivation became constant, except when the patient was under the influence of the morphia and atropia, which acted only when given hypodermically. Neither of these remedies given alone, nor both together given by the mouth, had any favorable effect in controlling the salivation. Various remedies were tried without effect. In addition to the salivation, there were frequent micturition and dysenteric evacuations every morning. After two months of treatment upon the hypothesis that the trouble was due to perverted

nervous action, dependent upon some lesion caused by the diphtheria, an examination was made of the pelvic viscera, and the womb was found to be in a condition of hyperesthesia and hyperplasia, with a granular condition of the cervical mucous membrane, a deep posterior laceration of the cervix and ante-flexion. Under local applications of iodine, the condition of the womb was somewhat improved, and change of air and scene was tried. Two months' absence improved her strength somewhat, but the salivation continued and the narcotics seemed to be losing their power, though now used in double the quantity that was administered at first. It was then determined to operate for the laceration. This was done successfully. The hypodermics were continued for two weeks, and were then gradually diminished for five days, the extract of coca being administered during those days while the morphia was being withdrawn and for some days afterwards. By the time the hypodermics were stopped the salivation had nearly ceased. She was kept in bed three weeks after the operation. Five months after the operation there had been no return of salivation.—*Am. Jour. of Obstet.*, Jan., '83.

Gastro-Elytrotomy.—H. J. GARRIGUES sums up the results of a careful study and comparison of Thomas', Müller's and Porro's operations as follows:

1. Dr. Thomas' method of gastro-elytrotomy has been performed eight times. One-half of the mothers recovered. All the children survived except two, who had died long before the operation was done.

2. The operation may be performed with many antiseptic precautions.

3. Porro's operation has given less good results, and Müller's no better than Thomas'.

4. The dangers, especially as regards hemorrhage, peritonitis and septicemia, are greater in the Porro-Müller operations.

5. The intra-peritoneal treatment of the stump in Porro's operation, carried out in five cases, has four times resulted in death.

6. One advantage in the Porro-Müller operations is the possibility of operating before the commencement of labor.

7. Gastro-elytrotomy is less repulsive to the mind of the patient, less difficult of execution, and can be performed with less assistance.

8. It does not sterilize the woman.

9. In country practice the old-fashioned Cesarean operation will, in most cases, be preferable to all its substitutes.

10. Thomas' operation can be performed on the left side as well as on the right.

11. The ureter stays below the incision.

12. All those who have performed gastro-elytrotomy on the living subject or on the cadaver recommend it.—*Am. Jour. of Obst.*, Jan., '83.

Sulpho-Carbolate of Sodium in Vomiting of Pregnancy.—PHILIP MIALl states that sulpho-carbolate of sodium seldom fails to afford relief in the vomiting of pregnancy. It is to be given in doses of seven or eight grains in a half ounce of water. He suggests a trial of the same remedy in sea sickness.—*Brit. Med. Jour.*, Dec. 16, '82.

High Temperature in Puerperal Fever.—In the report of the Committee on Obstetrics we find that the statement that in twenty-three cases of puerperal fever reported by nine different practitioners in the State of Minnesota, the temperatures were generally low— 101° to 102° —though 105° and $105\frac{1}{2}^{\circ}$ were occasionally noticed. Dr. P. E. Jones, of Red Wing, saw the thermometer rise to 108° twenty hours before death; and in a case of severe septicemia, under the care of Dr. Senkler, the temperature ranged between 108° and 107° every evening for nearly a week. This patient recovered, and in one case of puerperal peritonitis, which also recovered, the unusual temperature of 108° was reached.—*Trans. Minn. State Med. Assoc.*, 1882.

THE MEDICAL COLLEGES OF THE UNITED STATES now in existence number 110, while the total number in Canada is only 9. The schools of the United States graduated 4,299 out of a total of 12,454 matriculates, or 34.6 per cent. The Canadian schools graduated 81 out of 595, or 14.6 per cent.

SOCIETY PROCEEDINGS.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THE MORPHOLOGY OF PULMONARY PHTHISIS.

BY DR. EDWARD T. BRUEN.

I have been instructed by the committee of arrangement to present some considerations bearing upon the pathological anatomy of phthisis as a basis of a discussion of the subject before the society. The etiology of phthisis is very properly exciting careful attention at present; but the subject is in a far too unsettled condition to permit even a useful discussion. I shall not, therefore, allude to it, and I feel that I must offer an apology for the triteness of the subject matter of my paper, but I was informed that it was designed to have a series of discussions upon *familiar* pathological conditions. With this understanding my scruples have been overcome.

A consideration of special interest seems to me to be connected with the morphology of primary tubercle. In certain individuals, owing to inherited tendency or particularly unfavorable surroundings, recovery after bronchitis due to cold is retarded, or a susceptibility to a new bronchitis is increased. In either case, lingering catarrh in the majority of instances is the inception of the series of pathological processes known as phthisis pulmonalis. Two microscopical appearances nearly identical occur, but they differ materially in their microscopic anatomy. Certain so-called miliary tubercles are frequently composed only of the inflammatory products of connective tissue, without the characteristic true tubercular arrangement. The word miliary expresses their appearance, but the inflammatory products may be so arranged as to represent true tubercle, pseudo-tubercle, or a diffuse inflammation. This tubercle, or pseudo-tubercle, is constant in the different forms of phthisis in the adult, except in the instance of pure interstitial pneumonia. Frequently the amount

of tubercle tissue in the lungs is so great as to form the principal part of the process, although complicating inflammatory cheesy products are also present.

CLASSIFICATION OF PHTHISIS.

Tubercular peri-bronchitis is probably the best term for the earliest stage of phthisis, and sometimes is the best to designate the process all the way through. The appearance of the peri-bronchial tissues resembles berries on a stalk. The formation extends along the bronchi, spreading from acinus to acinus until the trunk is reached, and is also distributed in the sheaths of vessels and lymphatics. True tubercle may penetrate a bronchus and involve the lining membrane, and a true tuberculous ulcer may form the basis of an extensive associated bronchitis. Aside from this, these infiltrations excite inter-lobular connective tissue growth, and subsequently the walls of the vesicles become thickened, and some vesicular catarrh ensues, which may occlude a lobule. Thus the three divisions of the pulmonary tissue share in the pathological process of early phthisis.

Desquamative Pneumonia.—The cause of more than nineteen-twentieths of vesicular consolidation is a result of a process of desquamative pneumonia. This term is used to describe the diffuse inflammation which may accompany the former processes, and which more than the other changes paves the way for the disintegration of the lung. In this process the peripheral epithelial cells of the bronchi are proliferated and shed, thus filling the bronchi and infundibula, while the surrounding connective tissue becomes infiltrated with cells. In children this process is a common one, on account of the greater cellular activity in these subjects. In the desquamative catarrhal pneumonias of early life the process differs from the desquamative pneumonias of adults in that the air-cells only are filled, and there is little or no change in the intervesicular tissue. Hence it is that recovery is so much more frequent in children than in adults. This process of desquamative catarrh is the basis of those cases of acutely developed phthisis which follow croupous or catarrhal pneumonia, and which has been called acute catarrhal phthisis or galloping consumption—sometimes pneumonia phthisis. When the pathological process thus de-

scribed is less rapid, the result which follows has been classed by some as acute caseous pneumonia. When the changes are still more slowly developed, it is synonymous with the chronic catarrhal pneumonia. The relative development then of these processes known as phthisis, in the three divisions of the pulmonary tissues, the bronchial, the inter-lobular, and the vesicular, is dominated by the activity of the inflammatory process peri-bronchitis, with consecutive changes, in the latent forms, desquamative pneumonia in the more acute forms; while a process presently to be alluded to—interstitial phthisis—occurs as a very slowly developed change. In many of these cases, when the destruction of the lung is very rapid, the tubercular deposition, true or pseudo, occurs in early stages, but is masked in the later by the development of the secondary inflammatory desquamative pneumonic processes.

The situation at which phthisis is developed is probably most frequently the apex. The forces of expiration presumably are less efficient at this side, and the lungs are less entirely freed from mucus. The circulation also is less than at the roots and the products of inflammation are therefore dryer. The roots of the lungs, however, in a large majority of cases are primarily affected. This is especially true of cases in which the original processes of invasion are latent.

I pause here to observe a clinical point of some interest, viz., that when the area of the lung involved in the process of phthisis is distinctly limited, and does not shade off gradually into healthy lung, my opinion is that a favorable result may be very possible. Certainly I have seen the process of phthisis arrested even where it had passed into the stage of cavity, when the lesions were sharply defined. The localization of a lesion, other things being equal, is a point of favorable prognosis.

Another topic of interest is the share taken by pleurisy in the development of phthisis. A specimen already exhibited before the society is again shown to-night. It is taken from a colored man, seventy years old, with a family history free from the taint of pulmonary disease. He was tapped five times for the relief of hydro-thorax due to heart failure. Each paracentesis was followed by an exacerbation of pleurisy. Nine months after the first operation death occurred from an in-

crease of hydro-thorax. The autopsy disclosed general miliary tuberculosis of the pleura and secondary deposits in the viscera; throughout the parenchyma of the lung, adjacent to the pleura there was copious deposit of tubercle, but the other parts of the lungs were normal. Another specimen exhibits the same tendency, viz., general pleurisy with phthisis and cheesy deposit in the pulmonary parenchyma, with cavities. The deposits are most abundant near the pleural surface of the lung, the deeper parts evidencing a more recent date of formation. These specimens show that pleurisy may give origin to a tuberculous inflammation. But while this is true, it is conceded by all that dry pleurisy is a frequent secondary lesion in the progress of pulmonary tuberculosis. Pleurisy is, however, in many cases very conservative, since by the thickening and adhesion of the pleural surfaces the ulceration of the walls of superficial cavities is arrested and pneumo-thorax is prevented.

Interstitial Phthisis or Cirrhosis is a process in which true or pseudo tubercle may or may not be associated. The pulmonary tissues are traversed by narrow bands of connective tissue which may gradually compress it more and more, finally converting it into dense fibrous masses. The color of the lung is apt to be slaty and dark. However, in some cases of interstitial phthisis, patches of the peri-bronchial and desquamative pneumonia may be found, with cheesy degeneration. Interstitial formation is an important part of the process by which cavities are enclosed and sometimes cicatrized.

Distribution.—Interstitial phthisis, if consecutive to bronchitis, is usually bilateral, affecting the upper lobes, although as a unilateral affection it is not infrequent.

Syphilitic phthisis.—It is of interest to note in this connection that the early lesions of syphilitic phthisis so-called are evoked very often by bronchial catarrhal inflammation, which predisposes to structural changes. In these cases there is a principal interstitial fibro-nuclear growth, commencing in the alveolar wall and concentrically arranged around the smallest bronchi and pulmonary vessels. Wagner maintains that the alveolar wall is implicated as commonly in syphilis as in ordinary phthisis.

Bronchial narrowing occurs in these cases by the pressure

of the new growth which develops along their lumen. Bronchial occlusion may occur from this new formation, but it is also caused by the enlarged bronchial glands, one of the effects of syphilis. By this means serious mischief in the lungs may be developed, in kind proportioned to the the degree of obstruction, such as atelectasis, emphysema, and certain forms of pneumonia. Green and Virchow suggest that the origin of syphilitic diseases of the lung is distinctive in this respect, that while in ordinary phthisis the fibroid is secondary, or co-equal in its development with changes in the alveoli and alveolar wall, in syphilis there are primarily principal interstitial changes. Later, when entire vesicular consolidation and breaking down occurs, the process is similar to ordinary phthisis and indistinguishable from it. The vascularity of the new growth of connective tissue is also claimed to be a distinctive characteristic of the inflammatory proliferation due to syphilis. But we must remember, in any discussion of early syphilitic lung disease, that the one special and characteristic lesion of syphilis is the change in the intima of the blood vessels. This has not yet been demonstrated in the lung, but merely general thickening of the external coat of the vessels. In the effect of interstitial processes upon the bronchial tubes the syphilitic differs from the non-specific disease. The tough, contracting, fibrous tissue which radiates through the lung draws together the bronchial tubes, and deforms by narrowing or flattening them, possibly even to obliteration. On the contrary, in the forms of non-syphilitic fibroid phthisis the bronchial tubes are widened. The process proceeds, in syphilis, from the hilus into the interior of the lung, following the tract of the bronchial radicals and the bronchial arteries. The lesions also occur on the surface, near the visceral pleura, where there is also more connective tissue. Gummata occur as a later process. Time will not allow me to allude to these as I should like.

Miliary tuberculosis.—A demonstration of the pathology of phthisis would be incomplete without including some cases of true miliary tuberculosis. This process may be primary in the lungs, or secondary, as a part of the general infiltration of the serous and mucous membranes, the lymphatic glands and the viscera. This form of tubercle is characteristically recogniza-

ble only in the miliary stage. Its appearance as a number of small, hard, translucent nodules is too familiar to need description. A specimen upon the table illustrates an extensive lymphangitis of the pulmonary pleura, forming a network over the pleura. The process microscopically shows adenoid tissue in nodular form. Similar cases have been described before the London Pathological Society in 1880.

Enlargement of the Bronchial Glands.—Another important part of the phthisical process is the enlargement of the bronchial glands. They present a firm, pigmented character, and the connective tissue is usually infiltrated. I have observed in many cases, in individuals suffering from temporary catarrhal conditions of the bronchial mucous membrane, especially when there is a family history of inherited phthisis, but particularly in distinctly scrofulous persons, a set of symptoms referable to enlargement of these glands. These symptoms consist chiefly in an alteration of the rhythm of the breathing, presumably from pneumogastric irritation; inability to fill the chest with air and a sense of suffocation are complained of; added to these there is *pain* in the back to the right or left of the second dorsal vertebra. Further detail of the clinical ensemble would carry one away from the pathology of the subject. When the enlargement of the bronchial glands is excessive, it may occasion severe mediastinal pressure, and pain becomes an important clinical symptom, and is of the sort occasioned by mediastinal growths generally. To detect this enlargement during life, Guineau de Mussy has suggested percussion over the spinous processes of the cervical vertebræ in the course of the trachea. Following this line, in healthy subjects a distinct tubular sound is elicited by percussion down to the point of bifurcation of the trachea at the level of the third dorsal vertebra.

Opposite the fifth and downwards we get the lower pitched and pulmonary resonance. When the tracheal or bronchial glands are enlarged, the tubular sound over the upper dorsal vertebræ is replaced by dullness, which may contrast sharply above with the tracheal and below with the vesicular resonance. The result of bronchial pressure upon the pulmonary tissues is best marked when the processes of phthisis are not too extensive; also in interstitial phthisis, or in cases where there is

marked bronchitic complications. In these cases the lumina of the bronchi are seriously diminished, and vesicular air supply is interfered with. Consequently, emphysema with or without asthma, atelectasis, or a very intractable bronchitis, may occur.

I will not describe the morbid process of phthisis in detail. The involvement of an entire lung is simply the filling up of the parenchyma with peri-bronchial product, or with the results of the desquamative pneumonic or interstitial process. And as one or the other of these predominates, so do we have peri-bronchial, fibroid or catarrhal phthisis.

Another interesting although not demonstrable incident in the pathology of phthisis is hemorrhage. Bleeding from the lungs occurs both early and late in the history of cases. The late hemorrhage is easy to explain, being nearly always due to the ulceration of the blood-vessel walls. The cause of early hemorrhage is less simple; it is possible that in cases of phthisis there may be malnutrition or fatty degeneration of the blood-vessel walls, rendering rupture under conditions of increased arterial tension in the lungs an easy circumstance. It may also be the result of tubercular infiltration of the muscular walls, which is followed by rupture of the blood-vessels. Cavities in phthisis are the result of several processes. They occur (a) by a slow or rapid process of fatty degeneration, followed by ulceration; (b) as the result of chronic bronchitis and softening of bronchial tissue, with subsequent yielding to traction from without; for instance, in bronchial pneumonia or fibroid phthisis; (c) from abscesses, as a sequence of acute lobar pneumonia, following heptization or purulent infiltration; (d) as the direct result of gangrene, itself the immediate consequence of wounds of the lung or blood poisoning, or of emboli. Local gangrene on a small scale occurs sometimes around cavities in lungs or in the bronchial tubes, and may give rise to temporary fetor of breath, but is not likely to lead to fallacious inferences, chiefly because of its temporary character and the absence of permanent concomitant symptoms. It naturally follows that there are two locations for vomicae, the pulmonary and bronchial tissues. Specimens illustrating the various forms of cavities are upon the table.

The limits of a paper designed to open a discussion on phthisis will not permit me to dwell upon the bearing of these pathological changes upon physical diagnosis. I therefore will close with a brief résumé of the general clinical symptoms which define the diagnosis of the various sorts of cavities.

Phthisical Cavities commonly are situated in one or both lungs, and are indicated as a development in a train of symptoms which include as prominent features gradual emaciation, persistent loss of weight by reason of non-assimilation of food, more or less frequent hemorrhage, and hectic, frequent pulse, hacking intermittent cough, nummular sputa, expectorated in varying amounts throughout the twenty-four hours, and not periodically as in bronchial dilatations, nor inaugurated by a gush of pus and mucus, as in abscess.

Cavities of the Nature of Abscesses.—The pathology of these cavities, with its co-incident clinical history, is not that of phthisis. The history of these cavities is either recovery by contraction (especially after wounds), or more frequently the abscess grows larger and larger until the entire lung may be destroyed, in this respect resembling phthisical cavities. Where death occurs, it is by exhaustion and hectic; where recovery takes place, it is by free opening externally or internally and evacuation of the contents. At times, the small amount of constitutional disturbance, slight degree of emaciation, good pulse, easy breathing, slight cough and healthy complexion, are in noticeable contrast with the physical signs. Cavities of the nature just described are mostly located in the base of the lungs.

Cavities Due to Bronchial Dilatation.—Frequently for years the general health is almost unimpaired, and it is never so proportionately to the degree indicated by the physical signs. There is no hemorrhage or night sweats, and emaciation is not a pronounced symptom. The same physical signs persist for months or years unchanged, contrary to the history of most phthisical cavities, which continually alter with the advancing malady. The expectoration of bronchial dilatation is more abundant, fluid and purulent than in catarrhal phthisis, and is usually brought up in the morning or evening by the cupful. It is not a constant spitting of nummular sputa, as in true consumption. In chronic cases the expectoration may become so

fetid as to generate suspicions of gangrene. The cough is harassing, but is often relieved if the bronchial cavity is thoroughly emptied.

DR. MUSSER said that little could be added to this admirable and concise, yet exhaustive résumé of Dr. Bruen on the morphology of phthisis. The limited experience he had had in the study of the histology of phthisis had convinced him that in the microscopical structure of the lesions there is but little difference note-worthy in the primary changes. We have one school teaching that inflammation, another that tubercle, is the primary element. I cannot but agree with the author of the paper in the statement that the disease varies histologically with the variance in the intensity of one of these elements. In both we have epithelial proliferation and accumulation, changes in the vascular and lymphatic tissues (tubercle), and increase in the interlobular connective tissue. So intimately is the evolution of each of these processes connected, that a classification like that of Green (*Lancet*, '82) seems most proper: A. Consolidation, intra-alveolar. B. Consolidation, involving mainly alveolar walls. C. Consolidation, consisting largely of intra-lobular connecting tissue. Without absolute committal either way, and yet in the line of exact truth, the distinction thus given seems to cover the entire histological ground. Dr. Musser has had abundant opportunity for the study of the clinical aspect of phthisis, and although an arbitrary histological distinction of its varieties cannot be made, it is of the utmost importance as influencing treatment, and hence the prognosis of the case, to have a distinct and definite idea of the clinical varieties. The importance of the subject will be sufficient apology for the clinical remarks. Ante- and post-mortem observation has led him to adopt the following classification as convenient, systematic, and embodying the various phases of the disease:

- A. Acute. 1. Catarrhal pneumonia.
 - 2. Pneumonic or caseous phthisis.
 - 3. Pulmonary tuberculosis.
 - 4. Miliary tuberculosis.
- B. Chronic. 1. Catarrhal pneumonia.
 - Tubercle may be secondary.
 - 2. Tuberculosis.
 - 3. Interstitial or Fibroid Phthisis.
 - Tubercle may be secondary.

It is scarcely fair or proper to call acute catarrhal pneumonia a kind of phthisis, as it only is related as a possible primary factor. So seldom is it recognized and so baneful are the results of non-recognition, and the consequent inactive and inadequate treatment, that it is important to show its relation. It will be observed that catarrh and tubercle are distinguished, and so for convenience and contrast we may term the kinds "catarrhal" and "tubercular."

Perhaps a clue to the pathology of phthisis may be found in defining the characteristics of each. In the first place there is a marked difference in the predisposing causes of the disease—hereditary and diathetic condition. Thus tubercular phthisis is markedly hereditary, catarrhal is not; the tubercular is associated with the tubercular diathesis and phthinoid chest, the catarrhal, in some with the scrofulous diathesis and a perfect chest. Then the mode of onset differs greatly. In the former the general symptoms are more marked, the pulmonary symptoms in abeyance; in the latter, the pulmonary symptoms are more marked, the general slight. Emaciation, loss of appetite and dyspepsia precede or accompany the development of the former; they do not occur until late in the latter. Amenorrhea and changes in the voice also occur early in tubercular phthisis. In tubercular phthisis hemorrhages occur more frequently and earlier than in catarrhal. In tubercular phthisis dyspnea is a more marked and early symptom, and is out of proportion to the physical signs. Debility is more marked and more readily induced in tubercular phthisis. The temperature range is not so high early, and does not have the long daily sweeps in the late stages in tubercular as in catarrhal phthisis. With a doubtful mark it seems pleurisy and chest-pain is more common and constant in the tubercular than in the catarrhal form. The physical signs are bi-lateral and not pronounced in the tubercular form; they are unilateral and pronounced in the catarrhal form. The progress of the tubercular form is rapidly and progressively downward; of the catarrhal, slow and in spurts. Tubercular phthisis is contagious (?) and auto-infective. Over and over again do cases present themselves at the University Hospital and Dispensary with just such definite and broad distinctions, which distinctions should determine the line of treatment to be adopted, the catarrhal form re-

quiring a more active local and general antiphlogistic treatment. It is not to be forgotten that the cases are not always, I may say generally, so easily distinguished, while the picture does not apply to acute miliary tuberculosis or fibroid phthisis.

In a previous discussion on phthisis Dr. Musser had held that acute primary plastic pleurisy did not occur save in a tubercular subject, and hence was secondary to that diathesis. That statement is possibly too broad, and it should be that frequently recurring acute pleurisies occur only in the tubercularly diathetic, and are antecedent to the development of phthisis. The recognition of exocardial and subclavian murmurs leads one to say that persons having such sounds are *threatened* with phthisis.

DR. ESKRIDGE said that he had been much interested in Dr. Bruen's remarks, in most of which he concurred. As to pleurisy antedating phthisis, it was an old view, which had lately been revived. He had been struck with the frequency of chest pains preceding phthisis; in over 700 cases of which he had notes; this symptom was noted in more than two-thirds. This pain may be on the side opposite to that of the affected lung. Interstitial phthisis is not always a chronic affection, Dr. Barlow and others having reported cases which proved fatal in six months. Hemorrhage in his experience was a very common symptom in this variety of phthisis. Dr. Eskridge called attention to the fact that cardiac valvular diseases, especially mitral regurgitation, attended by venous congestions and coming on after birth, are rarely associated with phthisis, while congenital deformities of the heart, attended by venous stasis, etc., are followed, according to some eminent authorities, in nine-tenths of the cases, by tuberculosis of the lungs. Dr. Shakespeare said that one point made by the lecturer had especially struck him as being opposed to his own experience, viz., that the earliest part of the lungs attacked was generally the root. He had usually found the consolidation at the periphery of the lobe, often forming, as it were, a shell of solid lung perhaps an inch thick, while the central or deep portions would be either not at all or but little affected. This peripheral consolidation seemed to have no particular relation to initial pleurisies, for the consolidations were quite frequently met with in cases almost free from pleurisy and old adhesions. He had also

very often noticed at autopsies, after death from intercurrent diseases, wedge-shaped patches of solidified lung tissue having the base at the periphery of the organ and a slightly raised surface, much like infarcts and containing miliary tubercle, whilst the intervening pulmonary tissue was normal.

DR. FORMAD asked Dr. Bruen what he considered was the difference in the pathology of acute and chronic phthisis; also on which side the disease most commonly occurred. Dr. Formad also desired to put on record some new observations on the histology of phthisis, made by W. H. Mercur in the Pathological Laboratory of the University of Penna., which he narrated as follows: That acute phthisis (all fatal cases) is invariably complicated with croupous pneumonia, which conditions the lethal termination; that the lining of the bronchioles and the endothelium of the blood-vessels plays a very active part in the formation of organized tubercle granulations, filling and widely distending the lumina in both instances. The existing observations on this point, as far as I remember, refer only to blood-vessels, and then merely to cheesy, broken-down material obliterating vessels, or occasionally to the formation of giant-cells, or to something which in transverse section simulates a giant-cell. Mr. Mercur states, that the obliteration of bronchioles by living, organized granulation tissue, is the most common starting point for pulmonary tubercle granulations, and forms the greater bulk of the latter. He also found that the exudate within the air-vesicles in acute phthisis was capable of undergoing complete organization, and that a group of such blocked-up air-vesicles with organized exudate is usually called (erroneously) a miliary tubercle, the outlines of the air-vesicles being mistaken for submiliary tubercles. Mr. Mercur had failed to find a single true miliary tubercle in a large number of thoroughly studied cases of phthisis, and agrees with those who regard miliary tubercle-nodes as secondary products only. Dr. Formad desired distinctly to state that Mr. Mercur's observations were made on, and apply only to, the lungs.

DR. TYSON was interested to note how much histological investigation has contributed to our knowledge of the nature of these important processes under discussion; and while he was ready to admit that we owe much to experimental pathology

he felt that our present more correct notions were the result of microscopic studies of the human tubercular lung. The point to be insisted upon is, that all these processes are tubercular, and all are inflammatory, the catarrh of the lung and tubercle granulations being in all cases the initial lesion, whence it extends peripherally by desquamative catarrhal pneumonia, or centripetally by a tuberculous peri-bronchitis, the former furnishing the rapid and the latter the slow forms of phthisis. That pleurisy is often the initial lesion of tuberculosis he thought had long been acknowledged. Dr. Shakespeare said, that the observations reported by Dr. Formad for his pupil reflected great credit upon both, and was another testimony of the value of the work done in the pathological laboratory of the university, but at least two of the announcements, for which novelty and originality were claimed, had been forestalled years ago by other observers. He had particular reference to the organization of the products within the alveoli of the lung, and the announcement that the walls of the minute blood-vessels by a proliferating endoarteritis and periarteritis formed the miliary tubercle. The former is not only recognized and described in Green's Hand-book of Pathology, but is also most beautifully *illustrated*. The latter has been repeatedly observed and published, sometimes with illustrations. This origin of tubercle is distinctly referred to in the text-books of Wagner, and Cornil and Ranvier. All these books are in the hands of the university students. Dr. Formad said, that existing observations on this point, as far as he remembered, referred only to blood-vessels, and then merely to cheesy, broken-down material obliterating the vessels, or occasionally to the formation of a giant-cell, or to something which in transverse section simulates a giant-cell.

DR. BRUEN, in closing the debate upon the subject, said that he coincided with Dr. Tyson in the opinion that phthisis was rarely associated with heart disease. In mitral regurgitation there was often indeed a thickening of the pulmonary substance, allied to the indurative changes in the other organs from like causes. Advanced fibroid disease with cavities, as shown in one of the specimens exhibited by him through the kindness of Dr. Hinsdale, he had not met with heretofore. Dr. Formad's query as to the relative frequency of phthisis

upon the right or left side, he felt must be answered by the statement that one side was as liable to disease as the other, while, probably, in a small majority the right side was most frequently involved. He thought that the peripheral portions of the apices anteriorly were the most common starting point, where there was much desquamative pneumonia and rapid phthisis, while the roots posteriorly, were primarily attacked in the more slowly developed forms of broncho-pneumonic phthisis. The roots of the lungs are the seats of the latent phthisis, developed as the sequential lesion of croupous pneumonia. Dr. Bruen dissented from the view that croupous pneumonia was a frequent cause of death in phthisis. He believed that in the rapid, as well as in the more latent form of phthisis, death was preceded and hastened by a development of the tubercular nodular tissue to which allusion had been already made. This tissue completely fills up and chokes the acinous pulmonary structure, causing dyspnea, etc., etc.

C. B. NANCREDE, *Recorder.*

NEW YORK SKIN AND CANCER HOSPITAL.—A new hospital has just been established in New York for the special treatment of skin diseases and cancer. The medical staff consists of Drs. L. Duncan Bulkley and Geo. H. Fox, Physicians, with Drs. Daniel Lewis and W. T. Alexander, Assistants; Dr. Jas. B. Hunter, Gynecologist, with Dr. Jos. D. Anway, Assistant; Drs. Robt. F. Weir and Edward L. Keyes, Operating Surgeons; and Dr. A. R. Robinson, Pathologist. The consulting staff includes Drs. C. R. Agnew, W. H. Draper, Fordyce Barker, T. G. Thomas, F. N. Otis, Geo. M. Lefferts, E. G. Janeway, A. L. Loomis, A. Jacobi.

COOPER MEDICAL COLLEGE is the new name of the institution at San Francisco formerly known as the Medical College of the Pacific. The college has just been presented, by one of the members of the faculty, with an elegant five-story building, specially planned and erected for the purpose at an expense of about \$100,000. Dr. Lane, the donor, requested the change of name in honor of Dr. E. S. Cooper, the original founder of the college. The faculty of the Cooper Medical College have adopted the compulsory three years' course.

FOREIGN CORRESPONDENCE.

JOHN HUNTER — THE ROYAL COLLEGE OF SURGEONS — MEDICAL EDUCATION—HOSPITAL PRACTICE, SAMARITAN, GUY'S, WESTMINSTER—MEDICAL SOCIETIES, ROYAL MEDICAL AND CHIRURGICAL.

MR. EDITOR.—A few days since, wandering abstractedly through Westminster Abbey—600 years old—deciphering inscriptions on tombs and memorial tablets, and with thoughts reverting to the heroes and the great ones of the past, I unexpectedly came upon the slab which marks the resting place of John Hunter. It seemed as though I had found a friend, and my mind turned to the journal which carries his picture, as an inspiration, on its title-page; and further, my conscience pricked me, as I remembered a promise to send you, now and then, a “correspondence” from across the water, a promise as yet unfulfilled. But, as good resolutions were made at the tomb of England’s greatest surgeon, so you may look for amends in the future.

The memorial tablet, referred to above, is of granite, set into and even with the stone pavement of the north aisle of the nave, inlaid with brass letters and ornamentation. The inscription reads :

Beneath are deposited the remains of John Hunter, Born at Long Calderwood, Lanarkshire, N. B., on the 13th of Feb., 1728 ; died in London on the 16th of Oct., 1793. His remains were removed from the Church of St. Martin’s in the Fields to this Abbey, on the 28th of March, 1869. The Royal College of Surgeons have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine Power and Wisdom at work in the Laws of Organic Life, and their grateful veneration for his services to mankind.

On the day following my visit to the Abbey I had the pleasure of viewing the famed portrait of Hunter by Reynolds, after which the COURIER wood-cut is taken, that is, simply the head. It adorns the council chamber of the Royal College of Surgeons, shows the effect of time, the colors cracking and

darkening; still the features are very distinct, and bold, and grand. It is now carefully guarded by glass.¹

In the museum hall, same building, is a large marble statue of Hunter, sitting posture, the features of which do not strike my fancy as well as those of a bust in the stairway hall.

The Royal College of Surgeons took its birth in about 1470, Edward IV. issuing letters patent to the Mystery of Barbers; Henry VIII. united the companies of Barbers and Surgeons; and so changes went on till the present organization was patented in 1800. This institution is not a college in the sense in which we use the word, for it does not teach or instruct students; it confers degrees on those who have elsewhere been educated. The institutions that teach students or undergraduates are simply medical schools, which here in the metropolis are 13 in number, and in all cases connected with general hospitals.

The pupil is required to pass preliminary and graded examinations, to spend four years in medical study, including bedside instruction and service as hospital dresser, and to pay fees amounting to \$670, of which \$550—average—goes to teachers, and \$120 to the examiners, before he can become a member of the Royal College of Surgeons, and two more years of study, and \$80 additional fees, with another satisfactory examination, before he can become a Fellow R. C. S.

While the chief end of the College is to confer degrees, yet incidentally it is an educator through its museum, its library, and its lectures—all optional. The museum contains over 50,000 specimens. The original Hunterian collection—purchased for \$75,000—which forms the basis of the present museum, contained 13,682 specimens. What a work for one man! These are not kept as a distinct class, but are found among the other specimens, duly labeled in black, while the more recent additions are in red ink. The museum has departments, physiological and pathological, and human and comparative, affording rare opportunities for study and research. The name of Mr. Flower as conservator is sufficient guarantee as to the excellent management and condition of the specimens. The library contains 40,000 volumes, to which free access is had

¹There is in the same room an excellent full length portrait of Sir Astley Cooper, by Lawrence.

in a pleasant reading room, where also are to be found the principal medical periodicals of the world.

The monied receipts of the College for the past year were \$93,000, derived from examinations, property investments and trust funds. The expenditures were \$87,000, paid out in examiners' fees, working expenses, museum, library, prizes, etc. The total amount paid out since the commencement of the present century is \$1,660,000.

The winter course of lectures has already commenced. It will consist of eighteen lectures on Comparative Anatomy and Physiology; in June next, twelve others will be given on surgical topics. On February 13th and 14th will occur the biennial Hunterian supper and oration, the latter to be given by the President of the College, Spencer Wells, it being the anniversary of Hunter's birth. Anticipation is on tip-toe.

With such requisitions for study, and such superior attainments demanded¹ as are hinted at above before a degree can be obtained, and with such opportunities for observation and research as are afforded in the 170 dispensaries and hospitals, and in the numerous museums and libraries and societies, is it to be wondered at that London should produce able medical men? And yet the standard is not too high, the requisitions are not too great. But unfavorable in comparison must appear the demands for graduation in nearly all our American Medical Colleges. And yet I doubt not that when our country is one-fifth the age of this, the standard for degrees will be fully as high—even higher.

With us the standard must be raised; but what power is to do it? If left to the schools it will not be done. A few years since they organized for the purpose, but their efforts fell through and came to naught. Students attend where they get their degrees with the least expenditure of time, money and exertion. So that college which insists upon a high standard drives students from its doors. This power cannot be exercised by the American Medical Association, for it has no authority, though it was organized many years ago for the ostensible object of advancing medical education. Directly it closes its membership to the representatives or graduates

¹To instance the severity of the examinations. One-third or more of the applicants fail to pass, and may be remanded for further study.

of the incompetent schools, it sets itself in antagonism to a large number of influential members of the profession, which it cannot afford to do; and besides, it would be unproductive of good results. The remedy lies with an authoritative power, such as a National or State government, which can legislate. Professional opinion over here, commenting upon and commending the action of the Illinois State Board, that the schools shall come up to a certain standard of excellence, and that the degrees shall be conferred by an independent board—though it is but a slight step forward—says, that considering the youth and rapid growth of our country, we have done fairly well in the education of our medical men; that we are in earnest to correct the deficiencies, and that the remedies will be applied.

The rank which the American profession takes in society, the consideration with which it is treated, and the high regard in which it is held by the public, has always struck our English brethren as noteworthy and commendable. They suffer in these particulars here; the doctor is something of a drudge; he does not receive that equality of treatment in the best society to which his attainments certainly entitle him.

Assuredly I would urge a more severe and extended course of study than prevails with us. It is said that a prescribed and set course of study, such as most universities for classical study insist upon, may drive the latent genius out of a young man, forcing his mind into an unacceptable and unproductive channel. But this could not occur in medicine; if one had a genius for his profession, severe instruction would only give material for it to exercise itself upon and develop, and if there was no genius or aptitude the severe training would all the more be necessary. I trust the day is not far distant when our *colleges* will become *schools*; when teaching will be very largely done by recitation, and by individual work of the student in the laboratory, in the dissecting room and in the hospital; and when the degrees will be conferred by a strict examining board, more or less independent of the schools.

The opportunities for witnessing practice in any department of medicine or surgery are very extensive here. The numerous general and special hospitals and dispensaries are open and accessible to the medical man; and the attending physi-

cians and surgeons are polite and obliging, especially so, it seems to me, to American physicians. I cannot hope in the present communication (lest it become tedious) to give the results of my observations, but will briefly refer to a few.

Ovariectomies are of almost daily occurrence. I have witnessed three at the Samaritan Hospital; two by Mr. Bantock, and one by Mr. Thornton. The former does not take any antiseptic precautions whatever, but is *cleanly* and *careful* to a fault. In one large dermoid cyst, containing teeth and hair, the adhesions on all sides were quite extensive, and there was considerable oozing of blood. Hemostatic forceps were freely used, the cavity efficiently sponged, the pedicle tied with simple silk, the external wound united with silk-worm gut, a glass drainage tube introduced at the bottom of the wound, the mouth of the tube covered with sponge—afterwards carefully enveloped in oil-silk, the external wound covered with thymol gauze dressing, and the many-tailed flannel bandage around the whole. Chloroform vapor was the anesthetic used, and a little morphine given after she was put to bed, barley water for twenty-four or more hours, no quinine. I saw her on the eighth and sixteenth days following; on the latter date she was up and about the ward, well.

The second case was more simple, no hemorrhage, no adhesions, operative steps as before, except use of drainage tube. In cases demanding it, Mr. B. uses a wash composed of equal parts of alcohol and glycerine. Mr. Thornton's case was an unilocular cyst, in which the spray and other antisepsis were employed, as is his practice, to the extreme. Methylenes was the anæsthetic used. The annual report of the institution will be interesting as showing, between the two operators, the comparative merits of the carbolic spray. Visitors to the operations are registered, and must assert that they have not of late attended autopsies, cases of peritonitis or infectious diseases.

At Guy's Hospital, founded in 1721, and containing 700 beds, Mr. Bryant is the chief surgeon. He is somewhat past the middle age, hair and chop whiskers iron-gray, of medium height, full of health and energy, good natured, self-confident, self-reliant, speaks clearly and to the point, operates carefully and well, employs either chloroform or ether at will, no Listerism. He removed a carcinomatous breast, and, as the neighboring

glands and tissues were not yet involved, believed the result would be most excellent. Just as soon as a tumor is believed to be cancerous he removes it; if there is doubt in regard to its character, he still removes it, giving the patient the benefit of the doubt. He united the edges with interrupted suture and adhesive strips, previously introducing drainage tubes.

Second case was that of a young man with left inguinal hernia, which trusses would not keep up. Mr. B. believed the sac to be acquired, and that it contained omentum; on laying it open, however, it was found that the gut had followed the cord down. He split up the sac, dissected it from the cord and epididymis, removed the omentum, sewed up the sac with gut ligatures, using the same ligature to close the external wound; applied simple dressings and ice.

Mr. B. was followed in the Clinic by another attending surgeon, Mr. Durham, who presented a case of ununited fracture through lower part of thigh, broken many months before by a fall from a height, producing severe contusion of the soft parts, with much extravasation of blood. Union failing after some weeks the ends of the bones were excised, good coaptation of the fragments secured, and plaster of Paris splint applied; but the patient's system was so deteriorated that non-union continued. After a time the man left the hospital, and his family attendant complained that the part should have been amputated. Mr. D. replied by inquiring if the urine had been examined, and if an abundance of albumen had not been found in it, which, with the bad general condition of the patient, would militate against operative interference. Mr. D. took occasion to impress upon the students the importance of exercising care in criticising the conduct of their professional brethren, unless they were possessed of all the facts. The patient had been returned to the hospital, and as he was evidently failing, and no hope of union, and desirous of having his limb off, the operation was proceeded with. To prevent hemorrhage, compression of the femoral was made by means of a solid cylinder of lead, about one and a half inches in diameter and four inches in length, the lower end so fashioned as to press efficiently upon the vessel, held in the hand of an assistant. Such plan is much less tiresome than where the thumbs or fingers alone are employed. The flap operation was made, and the vessels

twisted, torsion being Mr. D's usual custom. Though a warning had been given against criticism, yet I queried in my mind why the amputation had not been made through the point of artificial union, instead of sawing through the bone two inches above. A longer stump would have been saved to the patient, a nicely rounded, well healed bony end would have been had in lieu of the freshly divided bone surface. There was no evidence of diseased bone. However, as it is now, the hospital museum has secured a fine specimen of artificial joint, otherwise lost to the institution.

In a similar case of ununited fracture, witnessed a few days after the above, at Westminster Hospital, Mr. Davy made an amputation through the artificial joint, no saw being required, securing thereby a nicely rounded bone end. The method adopted of making the covering flap is worthy of brief notice. The case was that of a boy in whom, for greatly curved bones of the leg following rickets, a wedged shaped piece had been removed, the limb straightened, put up in plaster of Paris splint, and union in improved position hoped for. But after failure of all expedients to induce the bones to unite, amputation only was left. A modification of the circular method, which latter was first suggested many years ago in the same hospital, Westminster, was adopted, which Mr. Davy designated as his coat-sleeve method. The skin, divided by a circular cut around the limb, is dissected up and folded back to a little above the point of intended amputation, the muscles cut through and the bone divided. Now, instead of bringing the cut edges together as ordinarily to make a linear union, the middle points of the four sides are brought to a common center, puckered in, giving a stellar or Greek-cross union of the edges. The centers are so held while a narrow tape is tied firmly around the flap three or four lines from the free margin. No stitches or adhesive plaster or other dressings are used. In three days sufficient union has occurred to allow removal of the tape.

In a stump resulting from a similar procedure, made some weeks before, the amount of scar tissue presenting was at a minimum, a little point just in the center of the radiating lines; puckering had so occurred as to present four cushions of sound skin on end of stump.

A word in regard to the hospital amphitheaters. They are

mostly uncomfortable and small, and without seats, there being just room on the different terraces for the students to stand; for safety, an iron railing about the height of the arm pits is carried around on each step, convenient for the student to lean upon and rest his wearied limbs, which in a *séance* of two hours have become tired. Improvement is certainly demanded in this matter. The mind works best when the body is at ease.

A few evenings since I listened, with much interest, to Sir Henry Thompson, who, at the Royal Medical and Chirurgical Society, gave an illustration of a new method of examining the interior of the bladder for diagnostic purposes, and also by the same plan to remove tumors polypoid, and perhaps otherwise, in character. The operation is an external urethrotomy, the incision being made in the raphé down upon a grooved director through the membranous portion of the urethra, large enough to admit the left forefinger, which may be pushed on through the canal into the bladder; thus neither the prostate nor viscus is cut. Supra-pubic pressure can be made with the right hand, forcing the walls of the bladder within contact of the introduced finger. Through the same opening, forceps designed by Sir Henry may be introduced for the removal of tumors. Of course hematuria from either renal disease or cancer would contra-indicate the operation. Eight or more cases were reported where tumors had thus been successfully diagnosed and removed.

There is much good work done here in the thirty-eight medical and allied societies. The halls of meeting are comfortable; the members, who register on entering each evening, are courteous and and possessed of much *entente cordiale*, the officers and speakers usually in evening dress; "no smoking," but a cup of coffee with sandwiches and cake after adjournment. The chief feature of the societies here, however, that we in the states should more generally adopt, is the *due* notice, advertisement, of papers to be read and subjects to come before the approaching meeting. This should be insisted upon in our national, state and local societies. Once introduced and customary, it would continue to be the rule from which new life would be infused into our organizations.

A. J. STEELE.

COMMUNICATIONS.

REFLEX VOMITING.

EDITOR COURIER OF MEDICINE:—The following case in my observation is unique.

During a visit to some friends a short time ago, my attention was called to some singular phenomena in their little fourteen months old boy, who was playing about the room in perfect health.

The mother remarked that they never gave him medicines to vomit him. In answer to my inquiry for an explanation, she called the child to her, and taking his nursing bottle from the table handed it to him. He immediately extended his hand for it; but I noticed he studiously avoided the nipple. She caught his hand and pressed the rubber nipple into the palm, whereupon he commenced to vomit in the most decided manner.

His grand-mother had raised him since he was four months old, and states that the first time she noticed it he was about six months old. She heard him retching and vomiting in an adjoining room, and going to him found he had the nipple in his hand. Not dreaming the nipple was the cause, she however instantly took it from him, when he returned to his play as if nothing had occurred. She again gave him the nipple, and again the vomiting returned. Since that time it has been well known in the family, and the experiment has been often repeated.

Shortly after this a gentleman gave him a greyhound puppy as a playmate. But as soon as he touched its soft hair he began to vomit, and it proved such a prompt and persistent emetic that the association had to be discontinued.

Since that time a number of other objects, animate and inanimate, have been recognized as possessing the same emetic powers.

During my visit I saw a moistened sponge handed to him, and after feeling it a few seconds, he commenced retching. Other articles found usually about a family room, such as a spool of silk, a ball of zephyr, etc., also have the same effect.

His olfactory and auditory nerves are equally sensitive to their respective impressions, he frequently becoming nauseated by odors that are not in the least offensive to ordinary persons.

The little fellow, unconsciously, pays a most flattering compliment to the pathos of Tom Moore's music, as he invariably weeps at the sounds of "The Last Rose of Summer."

Heredity may be credited with a contribution to this ensemble of rare phenomena, for I am told that a maternal aunt could never wear velvet goods, on account of the disagreeable sensations conveyed to her touch.

The father of the child is a university professor, and a typical representative of the class known as "nervous persons." He tells me that the tearing of dress goods has more terrors for him than a rabid dog. His mother's family are exceptionally free from the neuroses, save the aunt referred to above.

My object in sending you a report of this case is the hope of learning from some of your many well informed subscribers whether it is really as unusual as it has seemed to me.

W. G. MOORE, M. D.,

3041 Easton Ave., St. Louis, Mo.

CHLORO-HYDRIC ACID IN ALBUMINURIA.

GUNTERSVILLE, ALA., Jan. 28, 1883.

EDITOR COURIER:—In 1872, traveling in Florida, as I entered Jacksonville the ground was white with frost, about the first of December, checking malarial influence, yet probably leaving its spores to revive beneath the genial suns which followed. I was imprudent in exposure early or late along the river banks, and even in swimming, and was soon after troubled with a slight but rather obstinate dysenteric affection, which reduced my strength and made me more nervous.

I have been subject to a certain degree of hyperesthesia of the acoustic nerve, which rendered the habitation of great

cities very painful to me. Now, the steam-whistle of the boat on the St. John's was intolerable, and seemed to me the proximate cause of a brain-fever which confined me to bed for a week upon leaving the boat, and reaching a point on Indian river, which is an arm of the sea. During this fever, I remember that the shrill cries of a negro child about the hotel were excruciating to me. It seemed to terminate critically by a profuse discharge of albuminous urine, and I proceeded in an open boat to Merritt's Island. Here the albuminuria continued under salubrious conditions, and in the course of a month so reduced me that I was confined to bed. My eyes suffered so much from the sclero-choroiditis posterior, or pigmentary absorption characteristic of albuminuria, that I could not distinguish the color of a red-bird. At last I lost consciousness, evacuations were involuntary, and I was measured for my coffin—so I was afterwards informed. But about at the worst, my attendant, of whom I had requested the *tr. ferri chlor.*, unable to find this, got and gave me diluted hydrochloric acid. Under this beverage, and this alone, aided by the tone of my stomach, which never gave way, I revived, soon ceased to pass albumen, and convalesced. During convalescence, however, there was a succession of abscesses, affecting first the buttocks, then the forearms and right middle finger, the middle joint of which remains ankylosed.

Respectfully yours,

M. E. LAZARUS, M. D.

SELECTIONS.

MINIMUM REQUIREMENTS for a Medical College to be held in "Good Standing."

I. CONDITIONS OF ADMISSION TO LECTURE COURSES.

1. Credible certificates of good moral standing.
2. Diploma of graduation from a good literary and scientific college or high school. Or, lacking this,
3. A thorough examination in the branches of a good English education, including mathematics, English composition

and elementary physics, or natural philosophy. This provision will not be required before the close of the lecture sessions of 1882-83.

II. BRANCHES OF MEDICAL SCIENCE TO BE INCLUDED IN THE COURSES OF INSTRUCTION.

1. Anatomy. 2. Physiology. 3. Chemistry. 4. *Materia Medica* and Therapeutics. 5. Theory and Practice of Medicine. 6. Pathology. 7. Surgery. 8. Obstetrics and Gynecology. 9. Hygiene. 10. Medical Jurisprudence.

III. LENGTH OF REGULAR OR GRADUATING COURSES.

1. The time occupied in the regular courses or sessions from which students are graduated shall not be less than five months or twenty weeks each.

2. Two full courses of lectures, not within one and the same year of time, shall be required for graduation with the degree of Doctor of Medicine.

IV. ATTENDANCE AND EXAMINATION, OR QUIZZES.

1. Regular attendance during the entire lecture courses shall be required, allowance being made only for absences occasioned by the student's sickness, such absences not to exceed twenty per centum of the course.

2. Regular examinations or quizzes to be made by each lecturer or professor daily, or at least twice each week.

3. Final examinations on all branches to be conducted, when practicable, by other competent examiners than the professors in each branch.

V. DISSECTIONS, CLINICS AND HOSPITAL PRACTICE.

1. Each student shall have dissected during two courses.

2. Attendance during at least two terms of clinical and hospital instruction shall be required.

VI. TIME OF PROFESSIONAL STUDIES,

Before graduation, shall not be less than three full years, including the time spent with a preceptor, attendance upon lectures, or at clinics and hospital.

VII. INSTRUCTION.

The college must show that it has a sufficient and competent corps of instructors, and the necessary facilities for teaching, dissections, clinics, etc.—*Fourth Annual Report Illinois State Board of Health.*

OBITUARY.

Dr. CHAS. HAUCK.

At a regular meeting of the St. Louis Medical Society, held Jan. 20, 1883, the following was adopted:

The St. Louis Medical Society is again called upon to register the loss of one of its oldest members. By the death of Dr. Charles Hauck the physicians of this city lose a worthy colleague, who has dwelt and labored among them for more than thirty years.

Dr. Hauck received his medical education in the University of Goettingen, where he took his degree in 1846. He made his home in this city about the year 1850, and acquired a very large practice, gaining special reputation in the treatment of children, and enjoying the confidence and love of his patients and friends as a most estimable man. In the midst of his professional duties, in the very act of visiting the sick, he was suddenly called away.

Honor to the physician of many years, who executed his high trust with rare fidelity and energy, with marked skill and success.

The St. Louis Medical Society give voice to the unanimous sentiment of the profession in expressing their sorrow at the sudden demise of Dr. Hauck, and their deep sympathy with the bereaved family.

(SIGNED)

G. BAUMGARTEN, M. D.,
G. F. DUDLEY, M. D.,
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Committee.

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ORIGINAL ARTICLES.

BEEF TEA.

BY G. BAUMGARTEN, M. D., *Prof. of Physiology, St. Louis Medical College.*

[*Read before the Medico-Chirurgical Society, Jan. 23, 1883.*]

THE short paper I am about to read differs from most of the essays presented to this society in that it contains nothing new. I desire to recount again facts which are as well known as the subject itself—Beef Tea¹—but which are so often forgotten at the bedside, that it is not an idle task to urge attention to them. I do not write to detract from the reputation of beef tea as an article of hygienic value, but to combat the notion that in feeding a patient with broth, or beef tea, or extract of beef, we nourish him. The answer I received of a colleague whom I met in consultation not very long ago, to my question as to the patient's diet, will serve to illustrate my point and to hang my argument upon. He said: "Oh, the patient is excel-

(¹) The term beef-tea may here stand for all extracts or products of meat, whatsoever their name or mode of preparation, in which the muscular fiber itself is not dissolved or otherwise admixed.

lently nourished, has beef tea and so on *ad libitum*." The "and so on" proved to be nothing, the beef tea *ad libitum* eight to ten fluid ounces. Let us see how this patient was nourished.

Having destroyed the notes of a previous more detailed investigation of the subject, I undertook a re-examination for the purposes of the present paper, the results of which, though not quantitative, will perhaps present the matter more vividly than figures collated from the authorities.

A beef tea was prepared with the greatest care, by infusing half a pound of selected lean beef, cut in small pieces, with half a pound of cold water in a glass jar lightly closed, and slowly heated in a pan of water until the outer water boiled, then kept at a warm temperature for about two hours. The liquor obtained was turbid, of excellent odor and taste, and after standing divided into a clear straw colored liquid, with a very little fat on top, and a sediment of a reddish brown tint. In other words, I had obtained an aqueous infusion of muscle, in which the hemoglobin of the muscle and blood had been subsequently coagulated by heat, though it remained mechanically mixed with the liquid.

A beef broth was also prepared from soup-bone, i. e., a piece of the shaft of a long bone with lean meat attached, by immersing in cold water, heating slowly, and boiling for some hours; the result was a strong, palatable bouillon, the basis for an excellent soup, gelatinizing slightly on cooling.

These two products, each in its way, contained in common parlance the *strength* of half a pound of meat. I will not accuse the profession of to-day of using such language, but it is heard often enough in the sick-chamber, and the profession of a former day is evidently responsible for it, as we are for its continuance. In what does this "strength" consist?

The beef broth I will dismiss shortly, with the remark that it contained gelatine enough to cause a slight setting

when cold, but not even a trace of albumen or *any* proteid material. Some fat of course was present.

The beef tea was divided into the clear portion, and that which contained the sediment. The clear liquid was feebly acid. Tannin gave a very faint precipitate, showing the absence or a bare trace of gelatine. This proved that in the preparation of the tea undue heat had not been used. Nitric acid gave no precipitate, nor, on boiling, the xanthoprotein reaction. The copper test for proteids proved negative. Strongly acidulated with acetic acid, the tea was made slightly opalescent by pot. ferrocyanide. Acetic acid and sod. sulphate solution, on boiling produced no precipitate. These tests will probably suffice to convince you that proteids were absent altogether.

The portion containing the precipitate was diluted with water, rendered alkaline with caustic soda, and warmed in order to dissolve any coagulated proteids that might be present. Most of the precipitate was dissolved; the solution was of a mahogany brown color from dissolved hematin. On diluting and carefully neutralizing, a light precipitate was thrown down, which, collected upon the filter and carefully dried, weighed three grains. This precipitate contained all the proteid present in the sediment of four fluid ounces of beef tea, in the shape of an alkali-albuminate, for the filtrate was free from proteids.

Another portion of sediment was mixed with artificial gastric juice, and kept at temp. 90–105° one hour. Most of the sediment was dissolved. In the filtered liquid the copper test gave faint but distinct reaction, showing traces of peptones present, i. e., confirming the result of the preceding experiment in showing the presence of a small quantity of albuminous substance in the sediment.

Besides this trifling amount of proteid material and of fat (which latter, in practice, is guarded against with great care), the beef tea then contained only the salts of the muscle, the hematin and allied pigments, traces of sugar, perhaps, some lactic acid, and the nitrogenous extractives

creatin and its congeners. As the original half-pound of muscle may contain about forty to sixty grains of the salts, and ten to twelve grains of the nitrogenous waste products, the beef tea certainly contained no more.

Look at the meat, now, that has been spoiled in the making of the tea. All its fiber is left. The bulk of the solids of the meat is myosin; it is this we intend to pay for when we buy butcher's meat; it is this we mean to feed upon when we eat a beef steak. After the preparation of the beef tea, it is thrown away—a little the worse for its treatment, a little tough, insipid, deprived of its salts, yet containing nearly all the “strength” of the meat. The tea has removed from it no nutritious substance, excepting only the mineral salts.

Four fluid ounces of beef tea were dried in a water-bath—not quite perfectly, in order to avoid any possible destruction and hence loss, but rather to allow the error to tell in favor of the beef tea; the residue¹ weighed fifty-one grains; i. e., four fluid ounces of beef tea contained fifty-one grains of solid matter.

Nutrition is not to be compared to the effect of medicinal agents, of which a very small amount (in weight) may work very great changes in the behavior of the body; it is a matter of grains and ounces; a small quantity cannot nourish a great deal, no matter what the substance. The daily demand of the body is for so many grains—a good many—of carbon, of hydrogen, of nitrogen, etc., introduced in such compounds as can be made available by the body. To constitute “food,” the diet should contain proteid material, organic non-nitrogenous material, and mineral salts. To constitute a nutriment, a substance must contain at least one of these. But a mixture even of “nutriments” is not *food*, unless it contains a due proportion of proteids, because these cannot be replaced by any other substances. Now, beef tea, aside from its nutritious salts,

(¹) This residue was exhibited to the society, and weighed afterwards.

contains none of these things, and hence is not a nutriment, much less, by itself, food.

The utility of beef tea and similar products of the meat is well known to all, but in administering it not only the fact that it does not nourish, but also its uses, are lost sight of. One of the benefits it confers upon a patient is to invite and facilitate the digestion of food; yet how often is the food withheld which by its aid might be digested! How often is the patient starved on beef tea, when he is supposed to be well fed! How often is he supplied with the luxury of beef tea, when the necessities of life are carefully withheld!

Let the patient have nourishment, and then, if it will do him good, by all means let him *also* have beef tea, and condiments, and wine.

THE CONSTITUENTS OF A SUITABLE CLIMATE FOR THE VARIOUS FORMS OF PULMONARY. CONSUMPTION.

BY J. HILGARD TYNDALE, M. D., NEW YORK.

THAT there is no rule without exception goes without saying; that exceptions do not invalidate a rule is quite equally true. With this latter maxim in view, we will endeavor to find what constituents of climate combined are suitable to the majority of patients suffering from pulmonary consumption. Nothing could be a greater fallacy than to try to find a specific cure-all, either in the home or climatic treatment of consumption. Nor can we, in the present light of our knowledge of phthisical pathology, look upon that disease as a unit, but rather as a combination of the two main elements of disease, namely *inflammation* and *infection*. This combination and destructive co-operation of a localized inflammation and general infection

presents itself either as a chronic inflammation or an acute one, and as a chronic or acute infection. The various degrees of intensity and of quantitative destruction result from the variety of combinations possible where four constituents are given.

A chronic inflammation may exist alone (fibroid phthisis, cirrhosis); so may a chronic infection (chronic localized tubercle, cheesy centers); both may exist together, this being the most common form of cavities and infiltrations; an acute infection may occur alone (acute tuberculosis); an acute inflammation likewise, which, aside from the acute inflammation of lung tissue, occurs as sub-acute processes in the vulnerable (strumous) as "catarrh of the apex;" while, during the progress of a phthisis, an acute attack appears in the shape of an *exacerbation*. Lastly, in the progress of a chronic phthisis, made up of the processes of inflammation and infection, one of these processes will assume an intensity out of proportion to the ordinary course, when the result is death from *suppurative peri-bronchitis* or *edema* of the lungs in one case, or from *acute tubercular invasion* in the other.

For the purposes of climate—therapy—it is convenient :

1. To divide the chronic pathological processes in the lungs into a few general divisions, representing three stages of development for two classes of persons: the *robust*, and the *irritable* or *vulnerable*, either of whom may have been drawn below their physiological line by being *exposed*.

2. To find for these various forms of phthisis the best conditions of climate for curing or mitigating the disease—to secure more or less permanent arrest.

This much is prefaced, in order that what follows may be readily understood.

The pathological conditions in consumption are readily fitted into these several frames :

1. Superficial cases—so-called because the inflammatory condition of the respiratory tubes is still superficial, though chronic, with little or no involvement of the sub-

mucous connective tissue, where there is no septicemia, but a lowered *general condition*, this latter constituting the cause of the superficial process, which without it would not exist.

2. Cavities and infiltrations of the regulation sort, slowly but persistently progressive chronic inflammation (ulceration), with more or less septicemia (infection).

3. The same, in the condition of superadded acute or subacute exacerbations, occurring *intermittently* or *remittently*. Long intermissions often give rise to that mistaken idea of "self-limitation."

4. Assuming these forms to occur in the average individual, whether previously particularly robust or not, we find it necessary to assume the same conditions for the "irritable" persons of high nervous tension, chiefly manifested by readily *vulnerable mucous membranes and skins*; the result of an equally irritable circulatory apparatus.

5. The colliquative—the breaking down stage of any case of phthisis; the exacerbations no longer intermittent or remittent, but *continuous*, indicating great intensity of infection (acute tuberculosis) or of inflammation (suppurative peri-bronchitis). We may at once say that these manifestations of an early dissolution are not amenable to climatic treatment.

All of the other forms will be benefited or cured by a change to a climate suitable to their respective manifestations.

Because of the evidences of general depression of vital forces manifest in phthisis, it has been taught until recently, and is to-day believed by a majority, that the two chief therapeutical elements required are warmth and moisture, the fosterers of *equability of temperature*; elements which constitute what is called a mild, soothing or sedative climate. This fact will be shown in connection with the publication of the collected opinions of the pneumatologists of this country.

Dr. Jas. Henry Bennett,¹ of London, has for a number of years advocated the advantages of a cool, bracing and tonifying climate. This is well for a certain class of cases, but is going to the other extreme.

First of all, let it be distinctly understood that no *specific element* which cures consumption, resides in any climate of any part of our globe, whether at land or sea, in the lowlands or at mountain altitudes. But it is no less an error to suppose that any benefit derived from change of climate is to be looked for only in the fact that the air is "pure and plentiful" and constitutes "nourishment to the lungs." Nourishing of the lungs is carried on by the bronchial arteries, and not by that great net-work of pulmonary vessels which carry on the exchange of oxygen for carbonic acid, and thereby regulate our air supply.

Air may be called pure when there is an absence of mechanical and organic admixtures, represented by dust and noxious gases on the one hand, and animal and vegetable germs on the other. (For the literature on this subject see Tyndall on "Floating Matter of the Air.")

To the "superficial," above referred to, as well as to many phthisical patients in the more advanced stages, *any change from city to country, from a marine to a continental climate, or vice versa, will be productive of temporary benefit.*

This benefit consists only in an *increase of weight* and a *temporary amelioration of symptoms*. In other words, the general condition will be improved, but the local lesion in the lung will remain in statu quo. The same benefit is reached by ocean voyages, which explains the cures reached by that method.

Drs. C. T. Williams and Brehmer have observed that gain in weight bears no relation whatever to the local process in the lung. I have long been convinced that a mere gain in adipose tissue is a hindrance to absorption of in-

¹ On the Treatment of Pulmonary Consumption—Jas. Henry Bennett, M. D.

filtration in the lung. And more than that; as soon as an increased ingestion of food has re-established the average weight and something of the sensation of strength to the patient—as soon as this trifling change has accomplished all it can do—the phthisical process will resume its onward march. Hence the fallacy of teaching that a patient should “remain in that locality as long as he continues to improve” (Loomis), for by the time the patient recognizes his mistake he is far on the road to dissolution. Dr. Williams¹ says that this “demonstrates, only too faithfully, how all the appearances of an improved state of health may be present, and yet the disease may continue its insidious and steady march unchecked.”

Consumptives require more than mere quantity and normal quality of atmospheric air; it should be aseptic (not permitting of the development of infectious germs) or directly antiseptic (antidotal to germ life), as it is claimed for the exhalations of pine forests, and, in a lesser degree, for the salt-air of the sea.

What are the chief constituents of climate in general?

1. Pressure of the air column (barometric pressure), indicative, among other things, of the degree of *elevation*.
2. Humidity of the atmosphere—relative *dryness*.
3. Temperature of the various months and seasons—the mean degree of warmth, and the question of *range* of temperature—indicative of its *equability*.

These three: Dryness, equability and elevation, are the main constituents, the others being the result of the combination of two of them, or resulting from the effects of one upon the other.

- a. Intensity of sunlight.
- b. Force, direction and frequency of winds.
- c. Electricity—its quality and tension.
- d. Precipitation of rain and snow.
- e. The production of ozone.
- f. Mechanical and organic floating matter.

¹“Influence of Climate on Pulmonary Consumption.”

The number of clear days in the year is also of interest.

In selecting our *aseptic climate*, we do nothing else than to look for such conditions of climate as will insure purity of *soil and atmosphere*. Of soil we demand that it should drain water rapidly from the surface and not retain it, and that no ground-water shall be found at little depth, i. e., that there be an absence of *subsoil moisture*.

Of atmosphere we demand that there shall be an absence of *mechanical and organic floating matter*. These two are the elements to which both the robust and vulnerable are "exposed" at their homes quite frequently, and form the well-known immediate causes of consumption.

What constituents of climate favor the development of organic germ-life? Persistent heat and excessive moisture—the right temperature and the right fluid medium. Heat can be avoided by remaining within certain latitudes in the temperate zone. Excessive moisture is to be avoided, and *dryness* sought.

If, then, dryness and coolness (or cold even) are to be primarily sought after, what else is this combination but an *aseptic atmosphere*—a term for which I have frequently been ridiculed—and where are they *constantly* found? Why, at more or less high elevations. So our formula reads: *Dryness and elevation*. But how about equability of temperature? Have we no use for it? Equability of temperature is desirable for those to whom sudden *fluctuations* are hurtful. And who are they? The "irritable" and "vulnerable" of all forms of phthisis. To them the allaying of *irritation* and *low-lived inflammation* is the prime necessity, after accomplishing which they need the services of dryness and elevation. And why? Because equability of temperature in the temperate zone is secured only by the protecting influence of moisture; and we have seen excessive moisture to be our worst enemy, while the greatest equability is found in the company of great moisture. Hence the rule: In the selection of climate for equability, choose rather a reasonable equability with

less moisture, than great equability with excessive moisture unavoidably thrown in.

We have, then, as the desired factors for an antiseptic climate: *Dryness, equability and elevation.*

In their various relations to each other they form so many different kinds of aseptic climate for so many different forms of phthisis—the usual combinations of inflammation and infection.

Dryness is the antidote to infection.

Equability is the antidote to inflammation (of a low type).

It was my intention to add some of the facts regarding the effect of elevation upon respiration and circulation, but the scope of this article forbids it. The same applies to the effect of the other constituents of climate. This much I will say: Where we would have to choose between dryness and equability, we should take into account the importance of elevation, and it will make the choice easier to remember that dryness and elevation are found together, whereas equability is not usually found there, but, on the contrary, in the company of moisture.

Generally speaking, then, an aseptic atmosphere is the requirement for the majority of consumptives. Let us now see what constituents furnish us a reasonable guarantee against acute or subacute inflammatory exacerbations in the more robust. The conditions of climate best adapted to prevent these serious mishaps are the contrary of those which, in other climates, call forth fresh catarrhs and acute processes generally of the respiratory organs. By what are they called forth?

Besides the proofs elicited by Bowditch, Williams and others, Dr. Seibert,¹ of this city, has shown that the following meteorological conditions favor the production of pneumonia:

1. A strong fall in the barometer.

¹“Influence of Meteorological Conditions upon the Causation of Croupous Pneumonia”—By August Seibert, M. D., New York.—*Amer. Journ. Med. Sciences*, Jan., 1882, p. 108.

2. A low figure of the thermometer.
3. Northerly, and more especially northwesterly, winds.
4. Great velocity of the wind.

"It is principally the sudden appearance and long prevalence of cold, moist atmosphere which exercises this influence." (Op. cit.)

These conclusions coincide with well known facts, namely :

1. That northerly winds of great velocity, in cold weather favor a too rapid and continuous abstraction of heat from the body.

2. That a persistently high percentage of humidity hinders the loss of moisture from our body through the lungs and skin; thus disturbing that equalizer of our well-being—equable water-abstraction from the body.

The natural effect of these disturbances is seen in *internal congestions*. The inability of a consumptive to adjust himself to these meteorological fluctuations is manifested by repeated irritation and subacute inflammation of the pulmonary and gastric mucous membranes.

If these, then, are the elements which cause the mischief, we must look to the contrary conditions for the elements of repair and cure. These contraries are relative dryness, equability of temperature, and absence of strong and frequent winds. This baneful influence of winds reminds us that besides absence of moisture of the soil and admixtures of the atmosphere, we must look to the *movements* of the atmosphere. What is required is *high local shelter* to insure *calmness*.

On this continent, and, in fact, in the whole temperate zone, the combination of our aseptic constituents does not exist. For this reason we must seek to content ourselves with what is within our reach, namely, an aseptic atmosphere, both at elevations in the *mountains* and at low-altitude—a sea-level—including the *ocean* itself. Each one of these surfaces has a certain number of climatic

constituents which are suitable for consumptives, and *neither has all of them.*

Beginning at sea-level, let us see what constituents are found:

1. WITHOUT ELEVATION, AFFECTING BAROMETRIC PRESSURE.

a. Upon the Ocean:

No dryness, but considerable moisture; no elevation. But we do have: *equability of temperature*, coolness, and abundance of sunshine. Added to these is the continuous inhalation of air impregnated with salt, a feeble antiseptic, but present in great quantity. All these advantages combined serve to explain the benefits derived from long ocean voyages.

2. At the sea-shore:

Advantages all relative, to-wit: *moderate* moisture: *reasonable* equability of temperature; coolness or cold; sea-coast climates are dependent upon local shelter against cold or moisture-bearing winds; their equability upon proximity of the Gulf Stream and the equalizing influence of the moisture blanket.

3. Far inland:

Dryness on account of distance from large bodies of water; no elevation; no equability of temperature; warm, cool or cold. Much depends upon absence of subsoil moisture, of atmospheric organisms engendered by cities of any size, and shelter from too active *movements* of the atmosphere,—the type of *continental* climates, where relative dryness forbids equability of temperature.

d. Islands.

Equability of temperature; sometimes elevation (Sandwich Islands); no dryness. Upon elevation depend relative dryness and calmness—type of *marine* climates.

2. WITH ELEVATION.

Sufficient altitude insures *dryness* and *coolness* with the *elevation*; no equability; abundance of sunshine.

Though, as we have seen, not an absolute *sine qua non*,

equability of temperature is desirable in connection with medium or high altitude, and that degree of dryness which together constitute a perfect aseptic atmosphere. Now, equability of temperature is coupled to moisture at sea-level, and is wanting at altitudes in the temperate zone. We also know that warmth and moisture decrease, or what amounts to the same thing, that coolness and dryness increase, with increasing altitude. It is clear, then, that if we wish to find, combined, elevation and dryness (with coolness), and equability, we must look for an equatorial latitude and for *high* altitude. And why? The warmth of southern latitudes means a high thermometrical reading throughout the year, even on an average; the degree of moisture is throughout a relatively high one, frequently approaching saturation. As it requires about three hundred feet of elevation to find a reduction in temperature of 1° Fahr., and as it requires correspondingly high elevation to expand so much moisture, it follows as a maxim: The *extreme ideal aseptic climate*, in which altitude, with dryness and *sunshine* and coolness, is coupled to equability of temperature, *is found in equatorial latitudes at very high altitude.*

Such a combination is found in the Andes, of South America, in places where local shelter against high winds exists, and wherever the number of inhabitants is not large enough to constitute a fresh breeding-ground for infectious germs.

Such, then, is a general outline of the character and constituents of climates suited to the various forms of pulmonary consumption.

As to what class of cases is suitable for one climate and what to another, there are rules applicable within certain limits, and of these I have given a general outline.

As to the enumeration of the proper localities and sections of country, in accordance with the facts presented, this does not come within the scope of this article. Neither is this the place to point out the points in diagnosis upon which to base your choice of climate.

We need to keep in mind that all cases need an aseptic climate ("aseptic" being a convenient term for expressing an ideal combination of dryness and equability and their consequences); that asepsis *exists at altitudes and at sea-level*; that dryness in its most absolute form (below 50 per cent.) is found at more or less high altitude and is the most important constituent; that the constituents of dryness, equability and elevation exist in various proportions in different regions, forming so many degrees of *aseptic and antiphlogistic* influences, to which the various forms of phthisis can be relegated with benefit; that acute exacerbations (fresh inflammations—the hemorrhagic, "pneumonic") require primarily equability of temperature with calmness, because the co-operation of the opposite conditions produce acute inflammations of the air-passages, and secondarily increased dryness and elevation.

As a general picture of the pathological conditions on the one hand and their requirements on the other, let me present the actual lesions and their remedies, upon which my antiseptic and antiphlogistic home treatment is based. The pathological picture consists of:

1. A local process of destructive ulceration or condensation by infiltration, or both, in the lung tissue.
2. General septicemia—chronic blood-poisoning.
3. An anemic and enfeebled heart, of great frequency of action and weak of impulse.
4. An anemic and half paralyzed stomach and intestines, anemic glands, furnishing secretions poor in ferments; all tending to establish a vitiated digestion and assimilation.

These four combined are the cause of a *lowered vitality*.

In an aseptic and antiphlogistic atmosphere (dryness and equability), the local process in the lung and the septicemic condition meet with their proper remedy for arresting these destructive agencies and pave the way to repair.

In the rarefied air of medium or high altitude, the enfeebled heart, weakened diaphragm and the stagnant di-

gestive functions are stimulated to renewed effort by the increased arterial pressure, consequent upon the lessened pressure of the air-column, and thus make possible repair of defective nutrition, and ultimately of the lung lesion itself.

31 East Twenty-Second Street.

HYGIENE—MORAL OBLIGATIONS OF DOCTORS.

BY G. W. FARRAR, M. D., IRONTON, MO.

[*Read before the S. E. Missouri Medical Association.*]

IT is a common opinion that the chief motive actuating doctors in learning and practicing their profession is a pecuniary one. While it is true that doctors desire to make money just like other men, and are in duty bound to provide for themselves and those dependent on them, yet I emphatically deny the charge "that the love of money is the all-pervading spirit of doctors." It may be true of a few; still my honest conviction is that a large majority are actuated by a high moral motive, a love for humanity, a divine charity which prompts them to do their best to relieve human suffering. And in spite of malcontents, who charge them with hard hearts, with undue exacting and cruel oppressing, the majority of the people do duly honor our profession. Then I do not accuse the profession of a want of moral principle, nor of a total neglect of duty, when I say that we fail to exert the influence we can and should exert on our fellow men in the matter of hygiene. We do not neglect the study of it. The laws of physiology and their application to the preservation of health are familiar to every physician deserving the name. But is it not a fact that we are so much absorbed with the study of diseases, and their cure, that we lose sight of the important subject of prevention? Some may say: "It is

our *business* to cure the sick." Yes, but is that all of our duty? We see the cause of the disease. We know our patient, in many cases, is ignorant of that cause. Is it not our duty to inform him of the fact and warn him of the danger? We see families as well as individuals who employ us, and are dependent, to a great extent, on our knowledge and skill for their health, violating the laws of hygiene. Shall we ignore the fact and confine our duty to curing them when sick? If "an ounce of prevention is worth a pound of cure," is it not our duty to investigate the causes of their sickness—to understand the dangers to which they are exposed, and inform them and warn them against those dangers? If I permit an evil which I can easily prevent, am I not morally guilty to some extent for that evil? I am willing to leave the answer to the enlightened conscience of each one.

It is a lamentable fact that the masses generally are ignorant of the laws of physiology and hygiene; and it is an admitted fact that the greater part of the physical sufferings to which the human family is heir is the result of the ignorant or known violation of the laws of health which *could* be prevented. We, as physicians, see it every-day and every-where; e. g.: We are called to see a case of pneumonia, bronchitis, laryngitis, neuralgia, rheumatism, etc. Well, what caused it? The patient says: "I got wet;" or, "I took cold by sitting in a draught of wind when perspiring;" or, "I took off my flannel under-clothes;" or, if it is a child with the croup, "it threw off the cover in the night;" or, "the nurse carried it out in the wind," etc., etc. If it is a case of "biliousness," with its endless consequences, he will say: "Yes, I have been feeling bad several days; some headache, bad taste in my mouth, constipated," etc. If it is a case of dyspepsia, that hydra-headed monster, he will acknowledge that he has indulged too freely at the table; that he was irregular in his habits; ate almost any thing and at any time, but did not know these things had much to do with such and such sickness.

Perhaps you are called to see a patient shut up in a close, dark, ill ventilated room—she is anemic. In addition to your tonics, will you not advise more oxygen? more exercise in the open, uncontaminated air? more invigorating light? Perhaps some young lady with lily whiteness and delicate mould calls on you. She “feels weak; no appetite; not regular,” etc. Will you not warn her? You see that thin dress, those light shoes, that small waist artificially contracting the lungs, diminishing the supply of oxygen. Again: A young man calls. He is “not right some way or some how.” “Feels weak and dull, no energy, nervous, can’t half sleep, not much appetite, short winded, weak back.” On closer questioning he grows restless, looks embarrassed, confused, and answers evasively. After being drawn into a fuller confession, the unpleasant conviction forces itself upon you—the cause is manifest. It is embarrassing, but the danger is great. Will you not follow the better impulses of your nature and teachings of divine truth, and in love and sympathy tell that erring youth the *whole* truth? Will you not inform, admonish and warn him? But youth are not the only victims of ruinous indulgence. We find it too frequently among those of maturer years, where experience would be expected to have fortified them against self-destruction. Will you shun your solemn duty for fear of giving offence? Be not afraid of consequences in the line of duty. If actuated by the right spirit, and done in the right time and manner, you will not only save the health and perhaps the life of your patient, but in most cases receive his gratitude, and at any rate the approbation of your own conscience.

One of the chief media through which the true physician and philanthropist can accomplish most good, as a conservator of hygiene, is the public press, that powerful lever by which individual force is multiplied almost *ad infinitum*. I know there is a feeling of resentment, more or less just yet unfortunate, between the medical profession

and a large portion of the public press, on account of the advertising of "quacks" and "quack" medicine, in which some respectable papers have been engaged. Let doctors rather pre-occupy the press with truthful and useful information on the vital subject of hygiene, calling to their aid such plain truths, gleaned from and based on anatomy, physiology, and therapeutics, as can be understood and utilized by the masses of the people. Some covetous doctor says "that would diminish our business." Suppose it does, shall we be governed by selfishness rather than by a sense of duty? The probability, however, is the contrary. It would most likely increase the profits, as well as the usefulness, of our profession. Such an enlightenment would show the people more clearly the importance of our calling and the indispensability of our services. It might and doubtless would destroy the occupation of charlatans and pretenders. Ignorance is not only the chief cause of human suffering, but the chief obstacle we have to contend with in the practice of medicine. Our diagnosis is obscured by the ignorant interpretations and explanations of patients and their attendants. The administration of our remedies, and following of our instructions and advice, often fails for the want of information on the part of nurses and patients. Prejudice, the offspring of ignorance, opposes us also on every hand. It builds an impassable Chinese wall around some rich mines of usefulness, raising insurmountable barriers to progress, even trampling under foot the worthy and deserving.

Another field ready and waiting, with virgin soil, fertile of resources for the spread of hygienic knowledge, is the common school. Let our school books on physiology and hygiene have more practical lessons, more and better illustrations of the truths taught. It would make them more interesting as well as more useful. While it is true that some of the questions in the science of hygiene are obscure and demand the most profound thought and thorough investigation, still, like the useful minerals in the

bowels of the earth, requiring knowledge, skill and labor to obtain and reduce them, after being molded into useful forms they are readily seized and appropriated by the masses. As to obscurity, medical science, like others, is full of mystery; but instead of that embarrassing, it should stimulate us to greater efforts. All the truths of hygiene have not been gleaned from its unbounded fields. There are yet undiscovered mines of untold wealth, where bright gems await the earnest, investigating student. The perennial spring, whose waters shall perpetuate indefinitely joyous youth, has not been found. Then labor on, investigate earnestly and patiently. "We labor not in vain, for in due season we shall reap if we faint not." Strong in faith, stimulated by bright hopes, all aglow with the love of humanity, let us persevere in the good cause. We should go right into the homes and unfold the habits and conditions of the masses, and point out the dangers. We see their ill ventilated houses, built in low, malarial places, for convenience to water or roads or something else. We find them heated with stoves, without adequate ventilation, full of impure air, poisoning the blood, mining the health. We are kindly invited to take a seat at the table. The hostess glories in her snow-white bread. She does not know that bolted flour is robbed of its silicates and its gluten, elements necessary to health. No wonder the rising generation have weak bones and decayed teeth, and weak constitutions generally. So in every department we find mistakes, defects, obstacles to health. When we look around and take a general view of society, we see a morbid excitement prevailing among all classes. The little children are crowded into school too early. The youth are fed on a wild literature. The press teems with exciting news, fresh from all parts of the world. Everything partakes of the physical condition of the country and goes at railroad speed. New countries, new discoveries, new inventions—a kind of mania for excitement pervades society, affecting not only the physical but the social and moral habits of

the people. See the hasty marriages—blind selections—with their hereditary results, seeds of disease sown broadcast in the world. See the intemperance—not only in the use of intoxicants, but in nearly all things—reckless, self-destructive, low, vulgar. It rests like a pall over our country. Shall we as conservators of health shut our eyes, stop our ears, seal our lips? Does not hygiene call upon us as the guardians of the public health, and demand recognition and obedience? Doctors should exert their influence by precept and example in all these departments. They should be paragons of civilization—not only intelligent and devoted to their profession, but kind, humane, sympathetic, virtuous, moral, religious; so that medicine may be not only the “divine art,” but full of divine influences, diffusing light and knowledge, and happiness every-where and upon all classes.

No doubt the time will come when our Legislature will take hold of this subject, and perhaps appoint a commission, whose duty it shall be to investigate the sanitary condition of the state, ascertain the hygienic status and wants of the people, and make available the acquired information, point out the means of relief, and secure reformation and amelioration.

THE TREATMENT OF CHRONIC UTERINE AFFECTIONS.

BY L. CH. BOISLINIERE, M. D., *Professor of Obstetrics, St. Louis Medical College.*

[*Read before the St. Louis Obstetrical Society, Feb. 15, 1883.*]

IT must be admitted that in the management of special diseases there has been of late a growing tendency to lose sight of the broad principles of pathology, and to indulge in narrow views and methods, forgetting that

specialty is the lowest degree of the art, unless enlightened and guided by a thorough knowledge of general pathology.

It is against the exaggeration of this tendency that I wish to enter here my protest.

The time has come when the specialist should pause and ask himself if he has not specialized his knowledge too exclusively ; if some of us, for instance, have not fallen into the ways of too much local gynecology, and neglected, to a great extent, in treating our patients, the various resources furnished by therapeutics and hygiene?

Prof. Heinrich Fritsch, of Breslau, has lately noticed the tendency to employ "uterine surgery" more and more in place of medicinal gynecology. He remarks also that now almost every diagnostic or therapeutic innovation in gynecology is a new surgical manipulation.

Let us pause for a while and consider if we have not often, by our local methods of treatment, fretted and tormented beyond measure the uterus—that inoffensive little organ.

The uterus is a transitory organ ; its functional activity lasts about thirty years. After performing the functions of menstruation and gestation, it falls into a complete repose. It awakens at puberty, and slumbers at the menopause. There is not in the economy another organ analogous to the uterus. It is engrafted on the organism as a sort of parasite, receiving all the influences of that organism which sustains its life.

If the influences furnished to the uterus by the parent organism be healthful and normal, its life is healthy and normal. If these influences are deficient, or contaminated by some morbid principle, the life of the uterus becomes affected and its functions disordered.

What are those agencies or influences which can, by their continuance, thus affect the uterus, and become the principal causes of its chronic affections? These are the diatheses, and also the alterations in the quality and

quantity of the blood furnished to the organ. Functional and structural changes will result from these alterations.

The proposition that it is intended to maintain in this paper is, that in chronic affections of the uterus, most frequently, the disease is primarily in the organism, and the lesion secondarily at the uterus; although, it must be admitted, that in a limited number of cases the lesion may be primarily at the uterus, and the disease, through sympathetic irradiations, may be secondarily in the organism.

I therefore exclude from this study all the acute, all the surgical diseases of the uterus, all its traumatisms—such as laceration of the cervix and perineum, the fistulæ, etc., and all the tumors and neoplasms, although some of the latter may occasionally be benefited and even cured by agents affecting the condition of the blood and its distribution to the uterus.

In the surgical diseases of the uterus, we must all admit that active interference is very often imperatively demanded. Whilst yielding to this legitimate demand, I may express the hope that greater moderation and more deliberation may be exercised in deciding upon and selecting the best procedures, and also that greater fairness may be displayed by operators, in relating failures as well as successes. In this matter, if all the operators would have the fairness displayed by Dr. G. J. Engelmann, who has reported his failures as well as his successes, we would have a more reliable basis on which to establish a comparison between the results obtained respectively by the medical and surgical treatment of uterine affections.

I believe that, unless we admit the importance of constitutional influences in the causation and maintenance of many local lesions, a permanent cure of these lesions will not be obtained. Galen has said: "*Est uterus affectus ita ut corpus.*" The uterus is affected like the body.

However, I would not be understood to say that no local treatment should ever be resorted to. The lesions, when once established, should be properly treated by local

means. These lesions are often a source of irritation, and often a drain which adds to the patient's losses, and, by a morbid solidarity, re-act on the economy, especially if there be chlorosis present. This will be increased, for chlorosis will often create more chlorosis.

The local lesion should therefore be treated, and a temporary relief only will be obtained in all the cases where the lesion is not primarily at the uterus. In the very rare cases where it is primary, I admit that the lesion may be permanently cured by topical means exclusively. But, I re-assert that when the cause is general, relapses will be the rule, and that no permanent relief will be obtained until the morbid conditions of the blood have been corrected. Then will often the local lesions disappear spontaneously, or with very little topical treatment.

I can no more look on inflammation of the os and cervix uteri as a primary disease, causing derangement of the general health, chlorosis, gastralgia, neuralgia, etc., than I can look on a gouty toe, a rheumatic knee-joint, or an enlarged strumous gland, as the primary diseases causing rheumatic fever, scrofula, etc. Such was also the opinion of Rigby.

To illustrate my position, I take the case of a patient with syphilitic iritis. He falls into the hands of a narrow-minded specialist, who treats him by local applications only. Neither instillations of atropia in the eye, nor any other topical application, will ever cure this form of iritis, until the patient, in the hands of a man with broader pathological views, shall be placed under the influence of mercury and iodine. Then the cure will be rapid and permanent. The instillation of atropia in the eye will, however, be continued, not with the view of obtaining a cure of the disease, but in order to remedy one of its worse consequences—permanent adhesions of the iris.

There are cases of strumous ophthalmia or otitis, of scrofulous naso-pharyngeal catarrh, which no exclusively local applications will benefit. These cases will rapidly

improve with cod-liver oil, iodine, iron, and hygienic measures, after topical treatment has been discontinued.

It may be asked, what are the chief general causes upon which depend functional and structural changes in the uterus? These causes are mainly alterations in the quality and quantity of the blood supplying the uterus and its appendages, and also the morbid diatheses giving certain specific characters to the blood.

One of the most frequent expressions of an alteration in the normal condition of the blood is chlorosis. The influence of this alteration of the blood on the nervous system will explain the production of local lesions, such as ulcerations and catarrh of the uterus. Chlorosis acts in diminishing the innervation of the uterine system, perverts its secretions, and, from a morbid functional disturbance, leads to a phlegmasia of the mucous membrane. Andral states that whenever the principal agents of life, namely the blood and the nervous system, no longer nourish and stimulate the organs in a healthy manner, the vital force of aggregation which unites the different molecules of the the living tissues loses its physiological intensity, hence follows diminished cohesion of those tissues, and their softening.

The above views give, it appears to me, a true explanation of how ulcerations of the cervix, chronic endometritis and uterine catarrh are produced, and explains also the frequent formation of peri-uterine phlegmons and cellulitis as a complication of chlorosis.

Claude Bernard, in his well-known experiments on the section of the great sympathetic nerve, has demonstrated the effects of a perturbation of vascular innervation in producing congestion, phlegmasia and suppuration. This perturbation is the source of the menorrhagia, much oftener the result of chlorosis than of true plethora.

Hence the great importance of correcting by therapeutic means the chlorosis, which, if not corrected, will perpetuate the local lesions and the tendency to continually renew-

ing menorrhagia. Local means, in this condition, will prove quite unequal to the task of curing the local lesions.

Chlorotic patients present a variety of indefinite neuralgic pains. These pains are not always an expression of local lesions, because they greatly vary in their location. In these cases it may well be said that pain is "the prayer of the nerves for healthy blood," as expressed so beautifully by Romberg.

Listen to that prayer, grant the request of the nerves, by supplying them with healthy blood, and the neuralgia, the cardialgia, the hemicrania, the hystero-epilepsy, and the numberless ovarian pains, will vanish in proportion as the blood grows richer, and harmony will then be restored to the generative sphere.

Next in frequency to chlorosis are the different diatheses, in producing chronic affections of the uterus.

The most important of these is the strumous or scrofulous diathesis. This condition begins early, and is the cause of the rebellious leucorrhea, so often itself the origin of sympathetic chlorosis. The lesions produced by this diathesis, at first limited to the follicles of the cervix, as first shown by Morgagni, gradually gain the parenchyma of the organ, which subsequently becomes hypertrophied and hyperplastic.

At other times, erosions and granular ulcerations become manifest, and are producing more or less discharges, which, under various circumstances, becoming suppressed, are replaced by inflammatory exudations about the broad ligament and the ovaries. Pelvic cellulitis is a frequent complication in the chain of morbid changes produced by the strumous diathesis.

The indications are, therefore, to correct this morbid element, in order to obtain a permanent cure of the local lesions. A purely local treatment will never remove the lesions resulting from the influence of a strumous diathesis.

The same may be said of the influence of the herpetic,

the tubercular, scorbutic or hemorrhagic, and especially of the syphilitic diatheses. Each should be met with the treatment best adapted to its nature.

Much importance in these cases should be attached to hygienic measures—to hydro-therapeutics, to the massage, to change of air and climate, and great attention to dietetics. Under these influences, the cardialgia, the nervous palpitations, the meteorism, the hysteric symptoms, the hystero-neuroses, so common an escort to chlorosis, will be much mitigated and finally cease.

Lastly, I must consider the alterations in the quantity of blood supplying the uterus and its neighboring organs as an important factor in the causation of chronic uterine affections.

Subinvolution is one of the most frequent pathological conditions which can be referred to that increased blood stasis, and predisposes to hypertrophy and subsequent areolar hyperplasia—the so-called chronic metritis. Dr. T. Gaillard Thomas, in his admirable “Treatise on the Diseases of Women,” remarks that this condition explains the fact that “so large a number of women with uterine affections refer their illness to child-bearing, and that so many who were well until that process remain invalid afterwards. These hyperplastic and subinvolted uteri were those which chiefly furnished Lisfranc’s cases of ‘engorgement,’ which hundreds to-day are treating with powerful caustics as parenchymatous metritis.”

The source of the evil is an excessive supply of blood to the organ, and until this is diminished all local interference by leeches, scarification and blisters will only palliate the condition until a thoroughly depletory plan of treatment is adopted, consisting chiefly of those agents considered most active in removing the passive congestion of the portal circulation, such as mercurial and saline purgatives, followed by iodine and arsenic.

Local depletion will have been of temporary service in these cases, but there will be relapses, if no general treatment has been persevered in for some time.

An opposite condition to subinvolution is super-involution or uterine atrophy, supervening during the child-bearing period. This subject has been lately very well treated by Dr. W. Coles, whose paper on this subject is full of suggestions.

Super-involution will not entail great uterine suffering, but is accompanied by very peculiar nervous symptoms, which should be treated, as well as the more or less complete amenorrhea which follows it. The permanganate of soda or potash, general tonics, and especially electricity applied to the interior of the womb, may remove or correct this condition. Electricity seems to stimulate growth. An infantile uterus, under the above agencies, will grow to the size of a normal uterus—a very curious fact and well ascertained.

The abnormal supply of blood above noticed may reach the ovaries, producing a state of venosity, or rather varicosity of the ovarian or pampiniform plexus, which, when excessive, may rupture, or, by a process of stillicidium, pour blood into the retro-uterine space and form a pelvic hematocele, usually in Douglass' cul-de-sac.

It is only by the removal of this venous stasis that the danger can be averted. We should advise here a combination of local and general depletion, and especially frequent large doses of bromide potassium. The ovarian dysmenorrhea, a frequent complication of chronic ovaritis, will be thus relieved.

A singular symptom to be occasionally noticed in those cases of chronic ovaritis, is what might be called seminal losses in the female, brought on without any provocation on her part and accompanied with marked orgasm. The patients will present partial or complete frigidity in the sexual act, and have no or only little desire for it. They will consult you for this frigidity, and make to you the above revelation. Of course, this emission is furnished by the vulvo-vaginal glands, so active in coition and parturition, and is the cause of the greatest annoyance and debil-

ity in the patient, as the discharge and the orgasm are repeated several nights in succession, and may take place even during the day, in the waking state and without desire or co-operation on the part of the patient. I consider this condition a very grave one, as it may lead to epilepsy and insanity.

For the relief of it I have found the greatest benefit in repeated doses of the iodide of mercury and large doses of the bromide of potassium. No local treatment can be suggested for this condition except blisters in the iliac fossa, dressed with mercurial ointment; also measures which deplete the portal circulation and its tributaries, hydrotherapeutics, massage, etc.

Frigidity, another phase of ovarian functional disturbance, is the normal condition of all women suffering with chronic uterine affections. Frigidity, to a more or less degree is also quite frequently met in women apparently healthy. The truth is that the majority of women have no strong sexual desire unless under great solicitation. A passionate woman is the exception. But when the frigidity is absolute, it suggests great ovarian atony, and should be remedied by general tonic and hygienic measures.

These patients should be advised to carefully conceal the fact of their frigidity from their husbands, because sooner or later it will lead to an alienation of conjugal affections. The husband will be tempted to look elsewhere for more fervid embraces. These women should pretend to receive the pleasure which they do not feel. Woman is affectionate, tender, devoted, but not, as a rule, sexually passionate as man or sensational novel writers, without ground, suppose. Man is the active, creating, woman the passive, nourishing principle. Hence, sexual excesses debilitate the man, not the woman. He who gives loses more than she who receives. "*Plus est in dando quam in accipiando*," as the old school of Salerno has it.

In ending, allow me to say a word of caution in speaking of the prognosis to be expressed in all cases of chronic

uterine affections. The prognosis should be very guarded, avoiding all flattering promises of a speedy cure. Call time into consultation, remembering that chronic diseases require chronic remedies.

Too encouraging promises should not be offered, especially for the cure of sterility, as this condition is very seldom cured after it has lasted more than five or six years.

If it depends upon uterine flexion, section of the stenosis will sometimes remedy it. This section will, however, almost always, if well performed, cure the accompanying dysmenorrhea, but not always the sterility, as formerly fondly believed.

The chief cause of the sterility must be attributed to some constitutional condition (occasionally to atresia of the Fallopian tubes). The cure of it is chiefly to be sought for in general tonic and hygienic measures, electricity, etc.; also by curing the sterility of the husband, and by procuring for the patient another husband after the death of the first.

Allow me to end this paper by the following conclusions:

The late excessive tendency to specialize has led us to attach, in uterine affections, too great an importance to the lesions and not enough to the general condition.

Secondly—The morbid influence of the constitution on the uterus should be considered first, and the reciprocal influence of the uterus on the organism should be considered as secondary.

Thirdly—The uterus does not lead an isolated life in the organism, but it is only a link in that harmonious chain constituted by all the organs, and if the action of that chain be disturbed, there will be suffering in every organ constituting the chain. There will be suffering in the uterus, as well as in any other organ, but not more.

THE OPIUM HABIT.

BY FRANK McRAE, M. D., MELROSE, FLA.

IT is a matter of regret that a means of successfully treating a habit so prevalent as the opium habit has become in our country, at the present day, should be so little understood by the profession. We can hardly look over the advertising columns of a newspaper now without noticing a half dozen advertisements of quacks offering to cure the habit. They bleed the victims who are foolish enough to patronize them of thousands of dollars each year, and usually leave them in a worse condition than they were at the beginning of the treatment.

I have had considerable experience in the treatment of persons addicted to the opium and morphia habit, for the past ten years, and have devoted a great deal of thought to the subject, and it will hardly be believed by some of my professional brothers when I assert that a person can be cured of this habit (I will not say disease, as it is not a disease in the proper sense of the word) much easier and with less pain or suffering than a confirmed drunkard can be cured of the habit of drunkenness.

I am surprised that any physician should think of adopting such a harsh treatment as that recommended by Dr. Papin in his paper on the subject, viz., that of suddenly and totally depriving the patient of the drug, as well as all food and other medicines. And I am the more surprised that he should recommend such treatment, as he had tried a different plan with two of his patients with the happiest results. The strain on the nervous system of a person deprived of the drug, who was using even five grains of morphia a day, would be terrible; and if it did not cause the death of the patient, it would, in many cases, shatter the brain and nervous system to such an extent as to make an imbecile of him for the balance of his life. A patient of mine, a very intelligent and highly educated gentleman,

who was in the habit of taking about eighty grains of opium a day, described the pain and distress suffered by him when deprived of the drug for one day as terrible, and entirely beyond his power to describe. On one occasion, when without the drug for two days, he had a well marked case of delirium tremens, and would have died if the drug had not been supplied him. In describing his suffering to me afterwards, he said: "I believe hell is composed of opium eaters, and the punishment consists in withholding from them the drug, as that is the greatest torture I can imagine." This gentleman's case was the first I ever treated, and I now look back at the mode of treatment I pursued with that and a few other cases just after, and shudder to think what a great amount of pain I caused them to suffer without accomplishing any good. I did not entirely deprive them of opium, but gave it in such reduced quantities that it had no effect.

The horrors of the opium habit, as described by some writers, are highly overdrawn and have very little foundation in fact. There is no disputing the fact that some of its effects on the system are injurious, but not to the extent that is generally believed by even many members of the medical profession. I have known persons who took it for years without its producing any bad effects, but they used it in moderation, and only increased the dose from time to time as their nerves required it. Most of the bad effects that follow its use are caused by its being taken in doses larger than necessary to keep the nerves quiet. This is unnecessary, as after a few months all the exhilarating and soothing effects experienced at the beginning are lost, and they simply require a certain amount each day to make them feel as other people do. It was the large dose taken by the lady, mentioned by Dr. Papin as taking from sixty to eighty grains of the sulphate of morphia a day, that caused the spasms when she went to sleep at night. Her brain was over-stimulated by the large quantity taken during the day, and it was impossible for it to get complete

repose in sleep. Her mind being employed with her household duties and external objects, prevented the spasms during the day. Those spasms are always present during sleep, when the drug is taken in larger doses than are necessary, and in the reckless manner that it was taken by this lady. The fact that she took twenty grains more some days than she did others proves that she was reckless in its use, and did not know herself how much she really needed. If she had reduced the quantity ten or fifteen grains a day, it would have caused her some little distress for a day or two, but after that she would have slept well, the spasms would have disappeared, and she would have felt better in every respect.

The plan I have adopted, with complete success in the treatment of the habit, is to gradually reduce the dose of morphia, and at the same time give tonic medicines in large doses. Every physician has his favorite tonic which he can use, as it makes very little difference which is used, but it is necessary to use *nux vomica* in addition, as it is a powerful nerve tonic which can be combined with the other tonic. More than these will not be required. I prefer gentian root in combination with the *nux vomica*, as I look upon it as one of the very best tonics we have, but others may prefer Peruvian bark or some of the other tonics. It is more convenient to procure the fluid extracts, and dilute with water sufficient to make the dose a half ounce or an ounce. If the patient is taking ten grains of morphia a day, it can be reduced two grains a day at first without causing him to suffer any inconvenience, with probably the exception of the first day. It is best to make the reduction every fourth day. If the patient's usual dose is ten grains a day, he will take forty grains in four days, and with the two grains a day reduction he will need thirty-two grains for the first four days, which should be placed in the bottle with the tonic, making twelve doses. It is best to make the dose an ounce and give the patient an ounce vial to measure it in, as a spoon is very unrelia-

ble when perfect accuracy is required. The patient can stand two or three reductions of two grains each when the daily quantity taken is over ten grains, and after that it should be a little less each time, say a grain and a half, a grain and a quarter, a grain, and so on, until the daily quantity is reduced to an eighth of a grain a day, when it can be left off entirely, but it is best to continue the tonics for a few weeks longer, when they can also be stopped. The cure can be effected in a shorter time by making the reduction each day, but in that case it is necessary to leave it in the hands of the patient to make the reduction, and he cannot always be trusted. If this plan is adopted, make a solution of the morphia with the tonic, in a bottle containing the full amount of morphia usually taken in twenty days. Give him another bottle of the tonic alone, and direct that when a dose of the morphia is taken it be replaced with an equal quantity from the other bottle.

It is of no use to undertake the treatment of a case unless the patient has made up his mind that he wants to be cured of the habit. After he has fully made up his mind to quit, there can be no failure if the treatment outlined above is carried out.

Melrose, Fla., Feb. 15th, 1883.

VACCINATION.

BY W. HALLIBURTON, M. D.

[Read before the *Madison Co., Ill., Medical Society.*]

PREVIOUS to the discovery of vaccination, all attempts to check the spread of small-pox by the use of disinfectants and isolation proving futile, inoculation of the disease itself was practiced as a preventive measure, which

was displaced by Jenner's discovery. Although the relation of cow-pox to small-pox was a recognized fact as far back as 1713, and in a few isolated cases vaccination was practiced, and it was a traditional belief among the country people in Gloucestershire, England, Jenner's home, that persons who acquired small-pox by milking cows were perfectly protected against small-pox; notwithstanding these facts, we must recognize Jenner as the discoverer of vaccination, one of the most important advances in medicine. Jenner, in 1776, began to study scientifically cow-pox as a preventive against small-pox. In 1796, he made his first vaccination on man, and two years later he published his first important papers on the subject. In 1799, the first public institution for vaccination was established in London, and it was introduced into France and Germany in 1800, and is now recognized by all medical men of any standing to be as sure a preventive of small-pox as quinine is a specific for malaria. As regards the origin of cow-pox the evidence is conflicting. A spontaneous development is accepted by many, which I believe to be the true theory; while others claim that it is modified small-pox, obtained from contact with the human being, and so changed by the transplanting into strange soil, that when re-engrafted upon the human species it retains its peculiarity of strict localization. But as to the fallacy of this theory, I think there is much conclusive evidence, among which I will offer the observations of several surgeons of the Confederate army, during the late war, as given in an article written by Dr. Thomas F. Wood. After giving much evidence as to the non-identity of small-pox and cow-pox, in conclusion he states, that the question of the supply of genuine vaccine became such a serious one, that medical officers were commissioned to obtain vaccine by inoculating the cow according to the methods of Ceely and Sonderland. Dr. James Bolton, of Richmond, Virginia, was the first to experiment; being furnished with five young heifers by the Commissary department, they were placed in a pasture

near the small-pox hospital. Lymph was procured from the variolous pustules and inserted into the udder of cows, but all these cases failed. Dr. S. P. Crawford, of Greenville, Tennessee, tried the experiment three times without succeeding; first with a cow seven years old, then a young heifer two years old, and finally a calf six months old. He inserted the matter in the teats, nose and various parts of the skin, but never succeeded in getting a crust. Finally he fed the calf on the dry scabs, but it died without yielding the much sought treasure.

Dr. Wood also made a number of experiments while in charge of the Wilmington small-pox hospital, with like results, but it happened during the progress of his experiments that an army medical inspector visited his hospital, and after examination, pronounced the small vesicles genuine cow-pox, and confirmed his faith in his opinion by making some inoculations on the arms of two children in an Irish family near by. The inoculation resulted in genuine small-pox, which went through the family in various grades of intensity. Much other evidence could be offered as to the non-identity of variola and variola vaccinae, but it is not my purpose to discuss this part of the subject at length. As to the nature of vaccine virus, says Dr. M. A. Chauveau in an article on that subject, neither chemical analysis nor microscopical examination has revealed any special element to which the peculiar activity of the vaccine might be attributed. M. Chauveau has attempted to resolve these problems, by isolating the principles which enter into the composition of vaccine serosity, and subjecting each of them to physiological experiments. M. Chauveau succeeded in obtaining vaccinal serosity entirely free from all solid bodies, including the finest molecules. This was done by utilizing the phenomenon known as diffusion. He found that in all cases of inoculation with the vaccine deprived of its solid elements, there was a complete failure. These experiments permit the conclusion, that the vaccinal serous fluid is not virulent, and that the

virulence of the matter is dependent on the solid elements, but as to whether it was owing to one or all the solid elements, he was unable to determine at that stage of his experiments. Vaccination was originally performed with cows' lymph, but in former years it became almost the general habit to use the humanized lymph, which was claimed by many to be much superior to the pure cow lymph. But of late years its use has fallen much into discredit, owing to the claim that disease is often transmitted from one subject to another, which I will say just here is the strongest, if not the only argument of worth that the opponents of vaccination can offer.

The diseases of vaccination are divided into two classes : First, we have the true vaccinal troubles which will occur even when the purest bovine lymph is used. Second, such diseases as may be communicated by impure humanized virus.

Dr. Gustave Behrend, of Berlin, whose position as public vaccinator enables him to pay considerable attention to the subject, classifies the true vaccinal diseases as follows : Pustular, herpetic and erythematous eruptions occur in the course of the first three days of vaccination, and evanescent erythema and urticaria are very common in the first few days, but generally disappear before the seventh day.

The varied eruptions described were mild, and underwent spontaneous involution ; they were not caused by any specific action of the vaccine lymph, as precisely similar ones were noticed after the administration of certain drugs and articles of food. He also considered that any blood change might give rise to skin eruptions, but that a certain predisposition was also a necessary factor in their production. As to the second class of troubles, the possibility of the actual transmission of disease through vaccination had thus far been demonstrated in but a single disease, and that is syphilis. Could the opponents of vaccination prove that this occurs with any degree of frequency, or is with difficulty prevented, vaccination would thereby re-

ceive a severe blow. But herein is the weak point of the so-called opponents of vaccination; for the occurrence of the inoculation of syphilis is so exceedingly rare that the objections based upon them are materially weakened. And it is a well known fact that these bad results are due, not to vaccination, but to criminal carelessness on the part of the physicians in procuring impure vaccine. But to settle the vexed question at once, as to the inoculation by vaccination of any disease, be it syphilis, scrofula, phthisis or any of the fell destroyers of the human race, let us in all cases use the pure bovine virus, as did Jenner. At this day and date there can be no excuse for not obtaining the pure cow lymph, for we have, in almost every state in the Union, well conducted vaccine farms for the production of pure lymph, which are managed in the most approved manner by men of acknowledged ability and standing. No unprejudiced person can any longer be in doubt as to the efficacy and practical value of vaccination. In countries where it has been introduced, and in a measure systematically carried out, the number, the intensity and the extent of small-pox epidemics have been notably diminished. In this connection, nothing could be more convincing than the exceedingly interesting statistics of the mortality from variola, in Sweden, Germany, France and England, some of which I will give further on. If we for a moment entertain the supposition that this decrease in the epidemics is due to mere accident, this idea will prove at once fallacious if we study the statistics on the subject. We see at once, where vaccination is practiced regularly in early life, the mortality of children from small-pox, instead of being as enormous as in those not vaccinated, is nearly nil. The trial of vaccination in the Prussian army is conclusive evidence as to the efficacy of the measure; to test which we have only to compare the relative immunity of soldiers thus protected with the mortality of classes of the same general age in the civil community where vaccination is imperfectly carried out. Although vaccination is a pre-

ventive of small-pox, it will not, like the disease itself, render complete immunity for all time, and should be renewed at stated intervals. The length of the period of immunity is variously estimated, but seven to ten years is generally considered as about the proper time for re-vaccination. Were re-vaccination practiced with more regularity, our statistics of mortality among those vaccinated, as compared with those not vaccinated, would be more favorable to vaccination, and would also very much weaken the argument of the opponents of vaccination. It will be perfectly safe to say in most, if not all of those cases of small-pox in which it is claimed that vaccination did not protect, it will be found on proper examination that the time of immunity had either expired or the vaccination was improperly performed. Dr. Ogston, in the *British and Foreign Medico-Chirurgical Review*, January, 1873, records his experience of 227 cases of small-pox, treated by him during the recent epidemic in Aberdeen. His statistics confirm those of others as to the value of vaccination. Persons with good marks died at the rate of 8 per cent., with indistinct marks at the rate of 15 per cent., vaccinated without marks at the rate of 28 per cent., and the absolutely unvaccinated at the rate of 52 per cent., thus showing conclusively the protective power of vaccination, also the absolute necessity of re-vaccination, as the more recent and perfect the vaccination the less was the mortality.

Dr. Ballard, of University College, London, in an essay on vaccination, gives the following statistics: First, as regards the decreased mortality from small-pox since the introduction of vaccination. In London, from 1750 to 1800, 9.6 per cent. of all deaths were from small-pox. They decreased as follows: From 1810 to 1820, 4.2 per cent.; 1820 to 1830, 3.2 per cent.; 1830 to 1840, 2.3 per cent.; 1840 to 1850, 1.8 per cent.; 1850 to 1860, 1.2 per cent., thus showing a marked decrease in the fatality of the disease. Second, as regards the comparative fatality, when small-pox attacks those who have been vaccinated and those

who have not. In France, from 1818 to 1841, 16,397 cases were observed; of the unprotected, 16 per cent. died—of those protected by vaccination, 1 per cent. In Bohemia, from 1835 to 1855, 15,640 cases were observed; among the unprotected, 30 per cent. died—among the vaccinated, 5 per cent. In London Small-Pox Hospital, from 1836 to 1856, 9,000 cases were observed; among the unprotected, 35 per cent. died—of those vaccinated, 7 per cent. In Vienna Hospital, from 1837 to 1856, 6,213 cases were observed; of the unprotected, 30 per cent. died—of those protected by vaccination, 5 per cent. were fatal. Had re-vaccination been practiced at the proper time, the fatality among those vaccinated would have been much less, as is clearly proven by the following statistics: In Wurtemberg, in five years, among 84,248 re-vaccinated adults, there were but two cases of small-pox; while among 363,298 having been vaccinated in infancy alone, there were 1,058 cases. The necessity and efficacy of re-vaccination are attested by many physicians, and many statistics too numerous to be quoted here. In conclusion: I believe that our legislature should pass such laws as would enable the state board of health to compel the vaccination of all children above one year of age, and re-vaccination every ten years. This should be done, if necessary, at the public expense. If such laws were enacted and properly executed, I am sure that in a few years we would almost, if not completely, eradicate that loathsome and much-dreaded disease, small-pox.

A LADY PRACTITIONER.—Dr. Jennie McCowen was chosen president of the Scott Co. (Ia.) Medical Society for the ensuing year at the regular annual meeting held February 1st. This is a compliment to a lady practitioner not often paid by the profession.

EDITORIAL.

TREATMENT OF TYPHOID FEVER.

An important discussion has lately occupied the attention of the French Academy of Medicine during a number of successive meetings. An epidemic of typhoid fever had prevailed in Paris, and the questions discussed concerned the etiology and pathology, and the best method of treating that disease. It was many years since this subject had been presented thus before this body, and the interest in the debate was intense and prolonged. An authoritative verdict on such a subject as this by such a body as this is by no means a matter of local interest. The medical profession throughout the world is interested in the conclusion.

In the course of the debate the statement was made by one of the speakers that the method of treatment by cold baths had been abandoned by the faculty in Lyons, where it had been most thoroughly tested. M. Glénard, who has long been an enthusiastic advocate of this method of treatment, took pains to secure full statistics of the results of the experience of the physicians of Lyons, and then having formulated these results he presented them before a meeting of the faculty in Lyons. His conclusions having been almost unanimously endorsed, he was authorized to present them in the name of the faculty of Lyons to the Academy of Medicine. The conclusions reached thus are as follows:

1. The method of treatment which exercises the most favorable influence upon the course and result of typhoid fever is that which, taking into consideration the morbid elevation of

the temperature and the adynamic tendency of the disease, has for its principles: refrigeration by cold water, continual alimentation of the patient from the beginning to the end of his sickness.

2. The therapeutic procedure which responds most efficiently to the indication for continuously cooling the patient, is that which consists in administering full cold baths with cold affusion in the baths, and, in the interval, cold compresses. While the duration and temperature of the baths ought to be regulated according to the degree of refrigeration observed after each bath, and their interval according to the duration of the remission obtained by the bath, practice demonstrates that, in the immense majority of cases, the bath of fifteen minutes, 20° C. (67° F.), every three hours, day and night until the rectal temperature of the patient remains below 38.5° C. (101.3° F.), suffices to fulfill the indications.

3. The application of these therapeutic principles gives results so much the more remarkable as the disease is treated more methodically, and especially as the date of the treatment more nearly approaches the commencement of the disease. Typhoid fever assumes a more encouraging form during its whole course, and the duration of the convalescence is materially shortened. The return to health is complete. Complications are rare in these conditions, although there are some peculiar to this mode of treatment; there are no disagreeable sequelæ near or remote, which can be directly imputed to it.

4. When this treatment can be adopted only at a period remote from the commencement of the disease, when it acts no more to prevent complications, but to combat them, the results are still superior to those which any other therapeusis affords.

In consequence the physicians of the hospitals declare themselves partisans of Brand's method in the treatment of typhoid fever, with the conviction that this method regularly applied, especially at the commencement of the disease, lowers considerably the rate of mortality.

This statement was signed by twenty-two of the twenty-four hospital physicians of Lyons, who stated also that they used this treatment in their private practice as well as in the hospitals.

The reading of this testimonial caused quite a stir in the Academy. The paper was referred to a committee, with instructions to investigate and report the results of their research. This committee was appointed January 9th, and two

weeks later M. Colin, on the part of the committee, presented a report instituting a comparison of the results obtained in the treatment of the disease in the German and French armies, and indicating that the treatment followed in the former (Brand's) afforded less favorable results than that adopted by the French surgeons. A good part of the session of January 30th was taken up with a discussion, somewhat heated at times, in regard to M. Colin's report. M. Bouley took the floor in support of M. Glénard, who, not being a member of the academy, could not appear in person, nor really, according to the rules of order of the academy, by formal communications, though his memorial from the Lyonese Hospital physicians had been received. He stated that M. Glénard having been taken prisoner during the Franco-Prussian war, met at Stettin a German physician, with whom he formed a very pleasant acquaintance. He followed him in his hospital service, saw him apply to patients with typhoid fever a method of treatment the employment of which made with all the rigor of German discipline appeared to him to give most happy results, and such as were absolutely unknown in France. Having returned to Lyons, M. Glénard hastened to make known this method, and by his enthusiastic advocacy of it persuaded several physicians of the Lyons hospitals to apply them according to the rigorous rules of the inventor. This was the way that most of the Lyons hospital physicians put in practice the method of Brand and obtained results similar to those published by German physicians. M. Bouley claimed that it could not be considered to be merely a temporary fashion, as it had been in vogue for over twelve years in Lyons, and continued to be in favor there. Furthermore he claimed that wherever it has been carried out with close observance of all the details laid down by Brand, the results have been satisfactory.

In Algeria, where the disease has prevailed in a very severe form, M. Longuet seeing the terrible mortality under the com-

mon methods of treatment, had decided to apply the method of Brand, and out of fifty-two patients he had had but a single death, and other military surgeons had obtained equally satisfactory results. He thought it would be very strange indeed if the German physicians would follow out such a plan of treatment for twenty years, and the Lyonesse physicians for twelve years, if the results were not sufficiently favorable to compensate for the care, the trouble and the fatigue which its conscientious employment requires of those who execute it.

M. Germain Seé spoke at considerable length and with much force and eloquence, condemning the expectant method of treatment, disapproving the antiseptic methods as inefficient and impracticable, and advocating most earnestly and emphatically the antithermic or antipyretic treatment. He claimed that Brand's method is uncertain as well in its mode of action as in its results, and exposes the patient to formidable dangers. He regards the sulphate of quinine as the only true antipyretic, not only reducing the temperature, but diminishing the heat production and accordingly controlling the fever. He claims that its administration in the large doses necessary to secure this result is entirely devoid of danger. He thinks that the doses in order to be efficient must amount to thirty or thirty-five grains in the day. Much less than that quantity will have little effect in reducing temperature, while a dose much larger than that may cause toxic effects. He gives a dose of fifteen to eighteen grains morning and evening, and has not found any valuable antipyretic effect from the use of broken doses. He has obtained in all his cases thus treated a reduction of one degree, or one degree and a half, in twenty-four hours. This medication, he says, may be continued for one or two weeks without causing any serious conditions like those which are not infrequently produced by the administration of the cold baths. At the meeting February 6th, M. Jaccoud described the treatment which he has used for sixteen years,

and which he adopts at once as soon as the diagnosis is assured. To combat the adynamia, which is one of the characteristics of this fever, he directs the patient to take daily one or two litres (quarts) of milk, and also from one to three ounces of alcohol in a draught to be taken by the spoonful. To this draught M. Jaccoud adds forty to sixty grains of extract of Peruvian bark. To reduce the temperature he prescribes lotions, with cold water and vinegar or aromatic vinegar, four, six, eight, or even ten times a day, according to the temperature determined by the thermometer. To this extent the treatment is uniform in all cases. In cases of great gravity, where the temperature is unusually elevated, he administers quinine or salicylic acid in antipyretic doses (twenty to thirty grains), night and morning, and a little less the second day, then giving none for forty-eight hours and repeating it, if necessary. He prefers the salicylic acid whenever the patient's condition will allow of administering it. He opposed strenuously the excessive use of quinine advocated by some.

At the meeting February 13th, communications were read from the Lyons hospital physicians who had refused to sign the memorial prepared by M. Glénard. M. Teissier admitted that the cold baths were of advantage to combat the ataxic forms of the disease and excessively high temperatures, but were liable to cause serious complications. M. Boudet recognized their value in certain cases and for special conditions, but did not approve of adopting it as a routine treatment in every case. M. Dujardin-Beaumetz agreed with the views of the latter speaker, believing that the results were admirable in cases to which the treatment is adapted, but that it is not to be applied to all alike. No more would he prescribe alcohol to all patients alike as does M. Jaccoud. Nor would he prescribe such large doses of quinine for long periods continuously as does M. Germain Sée. An able plea for the cold bath treatment was made by M. Peter. He, however, does

not practice cold bathing as a routine treatment of typhoid fever, nor with the thermometer only as an indicator, but taking into account the totality of the symptoms of the patient. He recognizes contra-indications as well as indications for the administration of the cold bath. Hydrotherapy is indicated when serious and persistent nervous troubles are present: agitation, insomnia, delirium, stupor, etc.; also, whenever the skin is hot and at the same time dry. In some cases lotions with cold water alone or with water and vinegar are sufficient, but the cold bath is a supreme resource for a supreme danger, and should be used when the lotions prove inefficient. In closing he remarked that as we should write upon the tomb of Graves this epitaph: "He nourished his fever patients," and upon that of Currie: "He bathed those suffering from fever," so he would wish to have inscribed on his own at some day as remote as possible the legend: "He combatted the chemical theory of treatment and systematic routine medications."

The views of this latter speaker seem to commend themselves to our favor as being the most rational. It is a hopeless task to seek for a single method of treatment of a disease which presents so many different manifestations and types as does typhoid fever, and certainly there is abundant reason for the belief that serious and sometimes fatal complications are caused by the administration of the cold baths to typhoid fever patients.

QUININE IN THE URINE may be demonstrated either by discovering fluorescence in this fluid after it has been freed from chloride of sodium (by precipitating it with nitrate of silver), or by separating the quinine in the form of an iodide by means of a solution of iodine (two parts of iodine, one of iodide of potassium and forty of water). The iodide of quinine is dissolved on the application of heat.—*Lewin's Accidental Effects of Drugs.*

BOOK REVIEWS AND NOTICES.

WATER-ANALYSIS; A HANDBOOK FOR WATER DRINKERS. By G. L. AUSTIN, M. D. Boston: *Lea & Shepard*. (J. H. Chambers & Co., St. Louis.) 1883. 24mo., pp. 48; cloth, 50 cents.

This is a convenient little manual, intended to describe with sufficient detail for general use the simplest methods for analyzing drinking water, so that anyone can test for himself the water which he uses, and be able to ascertain for himself whether or not it contain impurities that render it unfit for drinking purposes. It would be well for every physician to prepare himself to determine whether water contains organic materials, and so to advise and warn his patients of danger from contaminated water. As shown by this little manual, no great amount of manipulation nor any great expense is involved in such investigation.

ON PREHISTORIC TREPHINING AND CRANIAL AMULETS. By ROBERT FLETCHER, M. R. C. S., Eng. Act. Asst. Surgeon U. S. Army. [From Contributions to North American Ethnology, Vol. V] 4to., pp. 32; paper, with nine full page plates and two figures in the text.

This is a most interesting and valuable contribution to the study of ethnology, and is executed with the same perfection of mechanical detail that is bestowed upon all the work of the government printing office. Dr. Fletcher gives us a complete and thorough résumé of all that is yet known upon the subject of prehistoric trephining, and concludes that the operation was probably performed by scraping through the skull, though possibly by making a series of punctures; and that it was probably done for the relief of disease of the brain, injury of the skull, epilepsy or convulsions. He thinks it probable that posthumous trephining, which consisted in the removal of fragments of the skull of a person who had undergone surgical trephining, was for the purpose of forming amulets to protect the person wearing them from the same disease or injury for

which the operation was performed. Thus far there is no evidence that the operation was in vogue among any other than the neolithic man on the continent of Europe.

A SYSTEM OF HUMAN ANATOMY, including its Medical and Surgical Relations. By HARRISON ALLEN, M. D., etc., etc. *Philadelphia: Henry C. Lea's Son & Co. (J. H. Chambers & Co.)* 1882. Illustrated with three hundred and eighty figures on one hundred and nine plates, many of which are beautifully colored. The drawings by Hermann Faber, from dissections by the author. Also upwards of two hundred and fifty woodcuts in the text. Section I. HISTOLOGY. By E. O. SHAKESPEARE, M. D., etc. 4to., pp. 96. Section II. BONES AND JOINTS. 4to., pp. 241.

As stated by the author in his introduction, "it is the design of this book to present the facts of human anatomy in the manner best suited to the requirements of the student and the practitioner of medicine." "A book which will be at once accurate in statement and concise in terms; which will be an acceptable expression of the present state of the science of anatomy; which will exclude nothing that can be made applicable to the medical art, and which will thus embrace all of surgical importance, while omitting nothing of value to clinical medicine, would appear to have an excuse for existence in a country where most surgeons are general practitioners, and where there are few general practitioners who have no interest in surgery."

Judging the work by the author's own standard, the object which he aims at himself, we think that he is to be heartily commended both for the standard he has laid down, and for the fidelity which he has displayed in bringing his work up to the standard. The work if carried out through the other sections with the same care and fidelity as have been bestowed upon the two sections already received, will be a work that will be a satisfaction and a help to every practitioner to have in his library and to use frequently. The mode of issuing it in separate fasciculi, which are complete each one in itself and contained in a substantial portfolio, is very convenient, and obviates the necessity of having them bound in heavy covers, unless the purchaser choose to do so after receiving all the parts. The execution of the engravings, and of the letterpress as well, is very satisfactory.

A TREATISE ON THE PRACTICE OF MEDICINE FOR THE USE OF STUDENTS AND PRACTITIONERS. By ROBERTS BARTHOLOW, M. A., M. D., LL. D., etc. Third edition, revised and enlarged. *New York: D. Appleton and Company.* (J. H. Chambers & Co., St. Louis.) 1882. 8vo., pp. 918; cloth.

We regard Dr. Bartholow's work on the Practice of Medicine as the most valuable one on the subject that has been published recently, and the fact that a third edition has been called for so soon after its first presentation to the profession demonstrates that it has been fully appreciated by those for whom it was written.

Dr. Bartholow is utterly opposed to that nihilism which has been so prevalent in medicine during the last two or three decades, and is perhaps too sanguine in regard to the value of drugs in the treatment of diseases; but we think that the influence exerted by his writings and teachings and practice is in the right direction, and will help to a more rational and hence more efficient method of treatment of diseases.

We are surprised that Dr. Bartholow does not mention in this volume the treatment of erysipelas by the hypodermic (or hypodermatic, as he says), injection of carbolic acid which, in his work on hypodermatic medication, he mentions as giving favorable results in his hands as well as in those of Kunze who first adopted it.

We note in the preface the statement that the work is being translated into Chinese for the use of the practitioners of medicine in the Celestial Empire.

LEGAL MEDICINE. By CHARLES MEYMOTT TIDY, M. B., F. C. S., etc. *Philadelphia: Henry C. Lea's Son & Co.* (J. H. Chambers & Co., St. Louis.) 1882. Vol. I. 8vo., pp. 636; sheep, \$—.

LEGAL MEDICINE. By CHARLES MEYMOTT TIDY, M. B., F. S. C., etc. *New York: William Wood & Co.* (H. R. Hildreth Printing Co., St. Louis.) 1882. Vol. I. 8vo., pp. 313. Vol. II. pp. 298; cloth (Wood's Library).

This exceedingly valuable work of Dr. Tidy is issued in this country by H. C. Lea's Son and Company as a volume by itself, and by William Wood and Company as two volumes of their Library of Standard Medical Authors for 1882. The second part is announced as in preparation by both houses.

Dr. Tidy is admirably qualified for the preparation of a work of this sort, and has done this with great care and patient re-

search, basing his conclusions upon a study of all the recorded cases that could be found in domestic or foreign literature. Abstracts of cases are given at the end of the chapters to which they refer. In cases where there are disputed points the author has taken pains to make experiments in order, if possible, to determine the truth, and has given the record of such experiments.

The subjects treated of in the present volumes are: Evidence, The Signs of Death, Identity, The Causes of Death, The Post Mortem, Sex, Monstrosities, Hermaphroditism, Expectation of Life, Presumption of Death and Survivorship, Heat and Cold, Burns and Scalds, Lightning, Explosives and Combustibles, Starvation.

Questions in regard to the time of occurrence of post mortem rigidity, significance of burns and scalds upon a dead body, possibility of recognizing people with certainty at a distance, are among those which are here discussed.

Some of the subjects are of practical importance rather to life insurance actuaries than to physicians, but the whole work is one which it would be well for every physician to read and to be familiar with. It is by all means the best work on medical jurisprudence that has yet been published.

CONSULTATION CHART OF THE EYE SYMPTOMS AND EYE COMPLICATIONS OF GENERAL DISEASES. Arranged after Foerster and others. By HENRY G. CORNWALL, M. D., etc. Published by H. C. McClelland & Co., Columbus, O. (J. H. Chambers & Co., St. Louis.) Price 25 cents.

This chart is the product of a good deal of study and care, and Dr. Cornwall has evidently taken much pains to collate thoroughly the various eye symptoms and complications of the several diseases. It is an ingenious chart, but does not seem to us to be of any special value to either the medical student or practitioner.

POCKET THERAPEUTICS AND DOSE BOOK. By MORSE STEWART, Jr., B. A., M. D. Third edition, revised and enlarged. Detroit, Mich.: Geo. D. Stewart & Co. (J. H. Chambers & Co., St. Louis.) 1882. 32mo., pp. 240; cloth.

This little volume contains, in addition to the posological and therapeutical tables, tables of formulas and doses for hypodermic medication, for douches and inhalations, table of solubility,

incompatibles and antagonists, diagnosis of eruptive fevers, signs of pregnancy, ready method of artificial respiration, poisons, their symptoms and treatment, classification of medicines, etc., etc., etc. It is a convenient reminder, and contains a great deal that one needs to know. There are a good many typographical errors, but we have not observed any that are of serious moment in any essential matter.

BOOKS AND PAMPHLETS RECEIVED.

Orthopedic Neuroses and Myelitis. By V. P. Gibney, M. D., etc. Reprint from *The Journal of Nervous and Mental Diseases*, Oct., '82.——The Functions and Disorders of the Reproductive Organs in Childhood, Youth, Adult Age and Advanced Life, considered in their physiological, social and moral relations. By Wm. Acton, M. R. C. S., etc. Sixth edition. Philadelphia: P. Blakiston, Son & Co. 1883.——Cooper Medical College, San Francisco. Annual Announcement, Session of 1883.——Addresses delivered on the occasion of the dedication of Cooper Medical College Building, by Levi C. Lane and by Edward R. Taylor.——The Treatment of Acute Eczema. By George H. Rohé, M. D. Reprint from *The Medical Chronicle*.——A Manual of Histology. Edited and prepared by Thomas E. Satterthwaite, M. D., in association with Drs. Thomas Dwight, J. Collins Warren and others. Second edition, enlarged and revised, containing two hundred and two illustrations, with an appendix. New York: William Wood & Company. 1882. 8vo., pp. 490; cloth.——Diseases of the Ear and Adjacent Organs. By Dr. Adam Politzer. Trans. and edited by Jas. Patterson Cassells, M. D., etc. With 257 original illustrations. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo., pp. 800.——A Practical Treatise on Diseases of the Skin. By James Nevins Hyde, A. M., M. D. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo., pp. 572.——Experimental Pharmacology; a Handbook of Methods for Studying the Physiological Actions of Drugs. By L. Hermann. Trans. by Robert Meade Smith, M. D. With 32 ill. on wood. Philadelphia: Henry C. Lea's Son & Co. 1883. 12mo., pp. 201.——The Systematic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M. D., F. R. C. P. Philadelphia: Henry C. Lea's Son & Co. 1883. 12mo., pp. 111.——Physical Exploration of the Lungs by Means of Auscultation and Percussion. By Austin Flint, M. D. Philadelphia: Henry C. Lea's Son & Co. 1882. 12mo., pp. 83.——Early Aid in Injuries and Accidents. By Dr. Friedrich Esmarch. Trans. from the German by H. R. H. Princess Christian. Philadelphia: Henry C. Lea's Son & Co. 1883. 12mo., pp. 117.——Transactions of the Medical Society of N. C., and North Carolina Board of Health at Concord, N. C., in 1882. Wilmington, N. C.: Jackson & Bell. 8vo., pp. 66.——The Percentage of College-Bred Men in the Medical Profession. A paper read before the American Academy of Medicine, Oct. 27, 1882. By Charles McIntire, Jr., M. D. Easton, Penna.——A Study of the Malformations, Variations and Anomalies of the Circulatory Apparatus in Man. By Randolph Winslow, M. D., of Baltimore, Md. Rep. from *Annals of Anatomy and Surgery*.——General Paralysis. By Philip Zenner, A. M., M. D., Cincinnati, O. Rep. from *The Cincinnati Lancet and Clinic*.——A Case of Hemiplegia. By Philip Zenner, M. D., Cincinnati, O.——President's Address Before the Medico-Chirurgical Society of New York City, 1882.

TRANSLATIONS.

RARE CASES OF SHOULDER DISLOCATION.¹

BY DR. LEOPOLD MEYER, COPENHAGEN.

I. M., a bachelor, aged 62 years, entered the Communal Hospital of Copenhagen, May 15, 1882. Eight days before he had an attack of epileptic convulsions, and on coming to himself remarked a lesion of the left shoulder, the left arm being fixed in the peculiar position which it at present presents. At first he consulted no physician, but severe pain at the inner part of the arm obliged him to enter the hospital on the day mentioned. The patient presents all the characteristic signs of a sub-glenoid luxation. But there was not only very pronounced abduction, but the arm is besides carried directly upward and raised almost vertically, the forearm is flexed at the elbow, the hand supported upon the head. We have here that rare variety of luxation of the shoulder which, in 1859, Middel-dorff designated by the name "*luxatio humeri erecta*." Immediately after his entrance into the hospital the patient was anesthetized, and reduction easily effected by abduction and extension followed by adduction. There remained, unfortunately, a paralysis of the nerves of the brachial plexus, which did not yield to treatment by electricity, and which we are disposed to refer to the interval of eight days which elapsed during the duration of the lesion, until the reduction of the luxation.

II. In 1881, a man entered the hospital with all the signs of a *luxatio erecta*, exactly as in the preceding case, but he left the hospital immediately after the reduction, which was easily effected.

III. A., a widow, aged 51 years, entered the hospital July 14, 1882. That same morning, walking along the street and

¹Abstract from *Nordiskt Mediciniskt Arkiv*.

carrying a bucket of water in each hand, she fell upon her back in such a manner that both arms carrying the buckets were very violently turned backwards, and that she felt severe pains in the shoulders, and especially in the right one. Having removed the clothing, there was readily determined a luxation of the two shoulders, each presenting the same variety, viz., a sub-coracoid luxation. Reduction was effected without difficulty, the patient having been chloroformed. She left the hospital well, July 28.

STATISTICS OF CATARACT EXTRACTIONS.¹

BY M. K. LOEWEGREN, LUND.

The author gives first some notes upon the ophthalmological clinic of the University of Lund. This clinic contains two wards with ten beds, and three private rooms. The average number of patients is 210 a year. The report embraces a period of ten years, viz., from July 1, 1870, to the same day of 1880. The number of patients cared for at the clinic during that ten years amounted to 2,107, and the number of cataract operations to 310. But of these operations 88 were performed by methods other than that of Graefe, and it is only of this class that the author proposes to make a report; there remain then 222 operations.

In general, M. Loewengren followed rigorously the rules given by Graefe, but he does not hold to the eccentricity of the incision, nor to the perfectly linear form. He divides the iris with two or three cuts, starting from the exterior angle of the wound, and takes pains always to give to the incisions of the capsule sufficient extent. For the removal of the cataract, pressure upon the lower part of the cornea has most frequently succeeded. He lays great stress upon the complete clearing of the eye, and he asserts that it is much better to repeat the measures necessary for this end, than to leave debris of the cataract in the eye or clots of blood, remains of the cortex, etc., in the wound.

¹Abstract from *Nordiskt Mediciniskt Arkiv*.

As to the after treatment, he does not examine the eye until forty-eight hours after the operation, except in cases which demand an earlier inspection, but he changes the dressing two or three times on the day of the operation, and on the following days twice, morning and night, in normal cases. He instills atropia only in cases of iritis. He employs anesthesia only on excessively rare occasions. For statistical purposes he divides the cases into two categories, simple cataracts, without any complication, and complicated cataracts. In the number of complications he includes not only serious diseases of the eye, as choroiditis, occlusion of the pupil, synchysis, advanced myopia, etc., but also diseases of the conjunctiva and lachrymal ducts, leucomata and spots upon the cornea, finally alcoholism, delirium tremens and diabetes.

As to results, he has divided them into three groups, viz., the good, in which the patients operated upon can read Jaeger's types, No. 1 to No. 10; the medium, where the patients are capable of distinguishing characters larger than those of No. 10, or of counting figures and of guiding themselves about; finally, the negative results. It is necessary to add that this relates to ultimate results, *i. e.*, those obtained not only by the extraction alone, but also after auxiliary operations, when it was necessary to resort to them.

The number of simple cataracts operated upon by the method of Graefe is 179. The first group contains 155 cases, *i. e.*, 86 per cent.; the second, 17 or 9.5 per cent.; and the third, 7 or 3.6 per cent. Among the first, 96 of those operated upon have been able to read the numbers 1 to 3 of Jaeger, 47 the numbers 4 to 7, and 12 the numbers 8 to 10. Auxiliary operations have been: discision in four cases, simple linear extraction in two, iridectomy in one, and iridotomy in one case. In the second group there were eight auxiliary operations, six times iridectomy, once iridotomy, extraction of secondary cataract once. The precise results were: in five cases the power to read large letters, in nine cases the patients operated upon could count fingers at a greater or less distance; in three cases the patients were not subjected to a supplementary operation. In four cases the extraction of the lens and capsule *in toto* was made. The result was good in three cases, medium in the fourth. Iritis has

occurred frequently, but in most cases the form has been benign.

The complicated cataracts have given far less favorable results. They have been good in three cases where there was chronic trachoma, in three cases of cataracta accreta, in two cases of advanced myopia, and in one case of leucoma corneæ. The medium result has been obtained in three cases of trachoma, three cases of leucoma, two cases of cataracta accreta, two cases of synchysis, and one case of divergent strabismus with amblyopia.

Panophthalmitis has destroyed seven eyes, four of which were in persons who suffered from saccharine diabetes. The author regards this complication as the most disastrous of all. He has operated upon five diabetic patients; the result was constantly unfortunate.

He does not employ the antiseptic method properly so-called, but he lays much stress upon the disinfection of the person of the patient and of the instruments.

Finally, the statistics of extractions has constantly improved during these ten years. In a first period, from 1870 to 1873, good results reached only 81.3 per cent.; 1874 to 1877, they reached 83.9 per cent.; and in the third, 1878-1880, they touched 94.8 per cent.

THE PREDILECTION TO TUBERCLES IN THE PULMONARY APICES, AND RESPIRATORY GYMNASTICS.¹

BY DR. OTTAVIA DE STEFANO.

TRANSLATED (Abstract) BY DR. — HERMANN, ST. LOUIS.

The author says, I have for several years made use of respiratory gymnastics, as the one, or at least the best, way to cure and prevent that predisposition of the apices to develop tubercles. He is fully aware of the fact that in most cases of developed tuberculosis one may not succeed in curing the dis-

¹Reprint from La Scuola Medica Napoletana.

ease, but he claims, even in advanced stages, at least to alleviate their sufferings and prolong their lives, and criticises those who think to have done their whole duty if they have given these unfortunates a routine prescription, or risk the little remaining strength of the patient by sending him away from home.

The doctor then sets forth, with great care and minuteness, the reasons why the apices are predisposed to be the nidus of tubercles. He says, giving his arguments as briefly as possible, if, according to the theory of Cohnheim, the virus is carried by the air it should infect the whole lung, and not with such constancy the apices. But the apices respire less (according to the experiments of Albin, the dilatation of the apex in the act of inspiration is equal to only $\frac{1}{10}$ th of its circumference, while at the base it is as much as $\frac{1}{4}$ th). By carefully preparing the entire lung in the cadaver and inflating it by the trachea, the apices will dilate last. The pressure of air makes the quantity of blood diminish in inspiration, whilst in expiration the pressure of air is wanting, and because the blood flows in diminished quantity to the heart the alveoli are richer in blood, hence they become engorged and offer a terrain where the virus may more easily develop itself.

This want of ventilation in the apices of the lungs the author considers as the intrinsic cause of tuberculosis, dependent on the constitution of the same, of the thorax and on the habitual mode of respiration. Then he points to the different trades and occupations, in which the respiration on one side is hindered, as an occasional cause. He never fails to ask on what side the patient has been in the habit of resting, and says it was almost constantly the side affected, and he considers that also as an occasional cause.

The author now goes on to describe the changes in the alveoli and small bronchi leading to "broncho-alveolitis," which in time furnishes a good substratum in which tubercles may develop.

Here the doctor takes notice of the great discovery of Koch, but adds that it does not make him alter the idea concerning the predilection of tubercles for the apices. With this discovery, one cannot destroy the fact that the tubercles and their bacillus can exist in the body in a latent state. If it were not

so, and if it were not first necessary to form a substratum for their development, the children of tuberculous parents would enjoy but a few months of life. Or, on the other hand, if we maintain that tuberculosis is developed solely by contagion, still we need a substratum adapted for the development of the bacillus; otherwise the mortality by this disease would be much greater.

The author describes with great ability the morbid pathology of broncho-alveolitis, the gradual engorgement of the capillaries, the changes of the mucous membrane of the alveoli and its secretion, the occlusion of the bronchioli, the increase of the "residual air" and consequent state of inertia, and the resultant chemical and fermentative changes in the parts. He also takes notice of the functional changes in the nerves as producing trophic changes in the epithelium.

He recognizes three stages:

The first—the stage of inertia, atonia, the incipient stasis in the pulmonary apices, with the secretion yet unaltered.

The second—in which the alveoli and small bronchi are completely impermeable, filled with the secreted material and imbibition of the tissues. In this stage, be it by the fermentation of the material or the other causes mentioned above, is produced the irritation of the mucous membrane of the alveoli and bronchi called broncho-alveolitis, which establishes a focus for the development of tubercles.

The third stage is characterized by the breaking down of the tissues so well known in tuberculosis. These stages can be well diagnosticated in life, and in most cases with great precision.

After entering into the diagnosis of each stage minutely, illustrating by a case, the doctor extols, particularly in the first stage, respiratory gymnastics. He makes the patient inspire deeply with a prolonged inspiration. But as these forced inspirations are liable to make the patient weary, he limits their number to five or six at a time, and has them repeat this a number of times during the course of the day. He recommends not to make these inspirations too deeply, not only because they might induce fatigue, but also disturb the circulation, especially where there is fever or palpitation of the heart.

If the patient bears it well, he increases these inspirations

until the habit of inspiring more deeply is acquired. To aid the act of inspiration, he recommends holding to a horizontal bar fixed above the head while inspiring, and bringing down the arms while expiring.

With these gymnastics he has been able to reduce the number of inspirations to the normal.

In the second stage, besides the constitutional treatment, he adds medicated inhalations and respiratory gymnastics. From blenorrhethics he does not expect much help.

In the third stage he has nothing particular to add, as all that can be done is to prolong the patients' lives and alleviate their sufferings. He feels satisfied that the fumes of pitch, incense, the pollen of pines, etc., and the vapors of oil of turpentine have a beneficial effect.

INFLUENCE OF THE WEIGHT OF THE BODY UPON THE PRODUCTION OF DEFORMITIES.

BY M. DALLY.

1. Static equilibrium of the body in the standing or sitting position is maintained only by the resistance of the elastic tissues and of the bones, having the ground for the point of support, while the power is represented by the weight of the parts of the body situated above the point considered. The muscles intervene only to bring or restore the line of direction into the vertical from the center of gravity.

2. When the muscles produce and maintain an attitude not in equilibrium, it is not by their own action but by that of gravity acting upon the points of resistance outside of the normal centers, and it is principally in the cartilages and the ligaments that an attitude which is not that of static equilibrium can produce a deformity.

3. In the case where the weight of the body is supported equally upon the two feet, there may be produced, under the influence of the burden, deformities which are manifested by the increase of the radius of normal antero-posterior curvatures, anterior inclination of the pelvis, or by forced extension of the femur upon the acetabulum.

4. In the sitting position, with equal bearing of the weight of the body upon the two points of support, the effects of long standing are corrected if care be taken to permit the loins and the back to be rounded lightly backwards in such fashion as to produce a single sacro-cervical curve.

5. On the contrary, the mechanical effects of a prolonged sitting position are produced in the same mode as those of the standing position, and conduce to deformities of the same order, if it is required that the loins are bent in inclining the pelvis forward.

6. In the position upon one foot or one haunch the weight to support is increased to double that which one of the sacro-iliac symphyses, one of the acetabula, can support. So this position produces an inclination with a double lateral torsion of the lumbar vertebræ and of the pelvis about the axis of the body. Frequently repeated and long maintained, this attitude produces at length a primary sacro-lumbar scoliosis and a coxo-femoral deformity.

7. The sitting position upon one buttock, or the mono-ischiatic position, produces exactly the same mechanical consequences, but upon the opposite side.

8. These vicious positions are very frequent. Sitting upon the left is even recommended by most of the masters and systems of writing. It is instinctive when one habitually uses the right hand. This favors it. It becomes more habitual and more prolonged in young girls, who remain seated ordinarily more of the time than do boys. Thus is explained, in part at least, the fifteen times greater frequency of spinal deformity in girls than in boys. The more sedentary habits of city dwellers explains also the greater prevalence of scoliosis among them.

9. Chronic deformities of the skeleton are most frequently produced in the second period of childhood, during a period when the elastic forces have not yet acquired a development proportional to the weight of the body. There is reason, then, to watch the attitude of children during their schooling, and to prescribe for them, if need be, rest in a horizontal position daily for an hour or two, so as to avoid fatigue.

10. In the case where the deformities of the skeleton result

primarily from a local pathological alteration, they remain dependent as to their definitive configuration upon the laws of weight, modified by the displacement of the normal centers of resistance.—*La Presse Médicale Belge*, Dec. 24, '82.

EXTIRPATION OF THE LEFT KIDNEY WITH AN IMMENSE FIBROMA OF ITS CAPSULE.

BY DR. R. BRUNTZEL, BRESLAU.

Elizabeth N., thirty-three years old, of a family free from all history of a tumor formation, became conscious five years back of an abdominal tumor that was painless, and this slowly increased. When it had reached the size of a human head she consulted a physician. It occupied the median line. On both sides there was resonance, in front none. It was hardly movable, of elastic consistency. For several reasons it was assumed to have originated in the genitals, but had become adherent with neighboring organs. An exploratory puncture gave negative results. All operative interference was considered unadvisable under the unfavorable condition of the patient.

In June, 1882, the woman came into my hands and insisted upon an operation. The tumor now extended from the ensiform cartilage to the symphysis pubis, and filled out the abdomen equally on all sides. The size of the growth hindered the patient in every movement, and caused severe pains. Satisfactory palpation of the abdomen was impossible. The earlier diagnosis pronounced the tumor to be intra-peritoneal, and probably arising from the uterus or ovary; at this time it was thought, possibly, to be a retro-peritoneal growth. There was no reason for considering it to be of a malignant nature. Heart and lungs functionated normally; no albumen in the urine.

July 1, 1882. Under the most careful antiseptis the abdomen was opened the whole length of the linea alba. The tumor was retro-peritoneal; it had raised the parietal peritoneum, together with the root of the mesentery, from the spinal column and pressed it firmly against the anterior ab-

dominal wall. To the left side of the tumor, a hand's breadth from the median line, lay the flattened descending colon. The transverse colon and omentum were closely compressed above. By its weight, it so pressed into the pelvis that the hand could not be pushed between it and the symphysis in order to ascertain its relation to the pelvic organs. I now divided the peritoneal cover of the tumor, and partly by the hand, partly with the knife, separated it; in places this was readily done, but particularly by the descending colon the two were so closely united that it tore through. Frequent large vessels that passed into the tumor required to be ligated. Finally the whole mass was freed to a small pedicle at its hinder part. But so large was its bulk, and so unmanageable by reason of its elastic consistency and weight, that it could not be lifted sufficiently to determine its exact origin. Not until the whole had been taken out of the abdomen could the topography of the space be examined. The left kidney was found to have been removed with the tumor; it rested in a depression upon its posterior wall. The ligated pedicle contained the renal vessels. Up to the moment of lifting out the tumor the patient had borne the operation well (combined morphia-chloral-chloroform narcosis), but then threatening symptoms appeared that compelled us to resort to artificial respiration and subcutaneous injection of ether. The edges of the incision into the peritoneum covering the tumor were stitched to the corresponding edges of the external wound, so as to leave the retro-peritoneal cavity free to inspection. Now, drainage tubes were laid in the cavity, one reaching above the ligatured renal vessels, the other down to the pelvis. The cavity was most carefully disinfected and dried, and the abdominal wound closed with sutures that passed through the muscles only.—Lister's bandages and strong compression.

The tumor was a fibroma of the kidney capsule, composed of a number of nodules of varying size, with loose adipose interspersed, and weighed thirty-seven and a quarter pounds. The kidney tissue was normal.

The operation had lasted two and a half hours; still the progress of the case was very favorable. Pulse at the outset 120—160; temperature slightly elevated; abdomen remained undistended; no offensive pus washed out through the tubes; no

vomiting. The food given was of most nourishing character, with free administration of liquids, both to quench the persistent thirst and to stimulate the remaining kidney; the amount of urine at first was much lessened, but by the sixth day had attained the normal. The abdominal wound behaved well. On the eighth and ninth days, abundant evacuation of the bowels. As the escape from the drainage tubes became minimal they were both removed by the ninth day. By this time all but the deepest sutures had been removed. On the 10th of July, as she attempted to sit up for the application of bandages, she fell back unconscious and was seized with convulsions. This was followed by excessive prostration, and death seemed at hand. Under most active restorative measures, consciousness gradually returned in three hours. Fecal matter was found to have passed out of a small opening still existing in the lower angle of the external wound, now elsewhere healed, in which the drainage tube had rested. The gut had ruptured. This explained the attack. A fistula was thus established—most of the feces, however, passing by the rectum. Under proper treatment, the intestinal fistula was closed by the 1st of August. Later, feces again appeared in the minute abdominal fistula, in small quantities, upon a violent muscular exertion. In the fourth week the patient quit her bed, and at date enjoys good health. Her weight is 75. lbs.—*Berlin. Klin. Woch.*, No. 49, 1882.

NOTICE.—The Southeast Missouri Medical Association will hold its next annual meeting in Fredericktown, Mo., commencing on Tuesday, May 1st, 1883, at 7 o'clock P. M., and will continue in session two or three days. Members of the profession are cordially invited to attend. The following papers are promised for this meeting: "History and Utility of the Fever Thermometer," by Dr. J. H. Bridwell; "Remittent Fever," by Dr. A. Barker; "Inflammation," by Dr. J. H. Renfro; "Heredity," by Dr. J. L. Haw; "Bright's Disease," by Dr. W. L. Tolman; "Digitalis—Its Uses and Abuses," by Dr. Wm. Nifong; "Gonorrhea, and Some Cases of Surgery," by Dr. S. E. Strong; "Relation of the Medical Profession to the Community," by Dr. H. W. Poston; "Keratitis," by Dr. A. A. Bondurant. Dr. C. A. Mann will talk on "Sulphur Springs, Medical Waters and Quackery." Some other papers are expected as well.

R. T. HENDERSON, M. D., Pres.

G. W. VINYARD, M. D., Sec'y.

REPORTS ON PROGRESS.

MEDICAL LEGISLATION.

In lieu of our usual reports on the progress of medicine, we present our readers this month with the following abstract of two bills passed by the legislature of the State of Missouri providing for the establishment of a State Board of Health, and for the regulation of the practice of medicine and surgery. Not having in hand the full text of the bill, we are indebted for this summary to an argument prepared by Dr. Conery, of the St. Louis Board of Health, one of the committee of the St. Louis Medical Society upon the subject of medical legislation. The provisions of the bill are reasonable and not oppressive. The enactment of these bills most certainly is veritable progress for the profession in our state.

The State Board of Health contemplated by this act is to be composed of seven persons, appointed by the Governor and confirmed by the Senate, who shall hold their offices for specified terms. Five of said Board shall be physicians in good standing, and graduates of reputable medical schools. It will be seen no special school is designated, leaving the appointive power entirely optional with the Governor, with the firm belief that he will exercise such wisdom in forming the Board as will grant to each college—the regular, homeopathic and eclectic—a full proportional representation.

The Board is to exercise a general supervision over the health and sanitary interest of the state, but not over the private practice of physicians. It will be its duty to recommend to the General Assembly such laws as are deemed necessary to improve and advance the sanitary condition of the state, and recommend to the municipal authorities of any city; or the county courts of any county, the adoption of such rules as it may deem wise or expedient. It is empowered to establish qua-

quarantine regulations against districts infected with any malignant infectious or contagious diseases, whenever it is in full possession of reliable information of the prevalence or prospective invasion of epidemics. It is to regulate to what extent and by whom any communications or business transactions may be had, either by the citizens of the country or of the state, and to that end is empowered to call on any police officer, sheriff, constable, and other officers of the state, to enforce the rules so far as the efficiency and success of the Board may depend upon their official co-operation, and it is made the duty of all such officers to assist the Board of Health whenever called upon to do so. It is also made imperative upon the Board, whenever in possession of information of any malignant or contagious disease prevailing in any portion of the State of Missouri, to immediately give notice to the citizens of the state to that effect, and also publish its rules and regulations for the enforcement of quarantine in infected and other districts, and take such steps and adopt such measures as may become necessary to prevent the introduction of such disease.

The Board of Health must also take cognizance of any fatal disease prevalent amongst domestic animals of this state, investigate the nature and causes of such diseases, and suggest proper treatment of such animals as may be affected.

The necessity of this measure of the bill must be fully apparent, and is of vital interest to every farmer and stock dealer in the State of Missouri. When it is known that the greater portion of all stock from Texas and other southern states in transit must pass through Missouri to supply the Eastern markets, thereby exposing our native cattle to pleuro-pneumonia, Texas fever and other contagious diseases.

"No rule or regulation adopted by this Board shall be legal or binding which shall be in conflict with any law of the state, or any ordinance of any municipality or town in the state." This section of the bill is intended for the purpose of preventing conflicts and misunderstandings between local authorities and the State Board, and for the purpose of securing mutual co-operation in all matters concerning public health and sanitary interests.

"The sum of ten thousand dollars, or so much thereof as

may be necessary, is hereby appropriated to pay the salary of the secretary, meet the contingent expenses of the office of the secretary, and the expenses of the board, and all costs for printing, which together shall not exceed the sum hereby appropriated. Said expenses shall be certified and paid in the same manner as the salary of the secretary."

The fact should not be lost sight of that the appropriation is for two years. The expenses of placing the Board under a thorough organization must necessarily be large. Then again, the actual amount of money will not be so great as it appears upon its face, when it is taken into consideration that the fees which go into the state treasury for each registration, as is required by the act for the Regulation of the Practice of Medicine and Surgery, will serve as an offset, and equal, if not exceed, the sum asked for in the appropriation.

The bill to Regulate the Practice of Medicine and Surgery requires every person practicing medicine and surgery to register his diploma with the Board of Health. If the diploma is genuine and issued by a reputable school of medicine, the Board issues its certificate upon the payment of a fee of one dollar; said certificate entitles the lawful holder thereof to practice medicine. If not a graduate, and practicing medicine in the state for a term of less than five years, he shall submit to an examination as to his qualifications. If his examination proves satisfactory to the Board, upon the payment of a fee of five dollars, the said Board shall issue its certificate in accordance with the facts, and such shall entitle the lawful holder to all the rights and privileges. If a diploma is found to be fraudulent, or not lawfully owned by the possessor, the Board shall be entitled to charge and collect twenty dollars from the applicant presenting it.

All fees collected by the Board and secretary are to be paid into the state treasury. The verification of a diploma shall consist in the affidavit of the holder and applicant. Graduates are allowed to present their diplomas and affidavits by letter or by proxy, and the Board issues its certificates in accordance. Every physician holding such a certificate is required to have it recorded in the office of the clerk of the county in which he resides, and the record shall be indorsed thereon. Any physi-

cian moving to another county must procure an indorsement from the county clerk, and shall have the same recorded in the county to which he removes, and pay the clerk the usual fee for making the record.

Section 12 relates to fixing fines and penalties for practicing medicine and surgery without complying with the law, and for any person filing or attempting to file, as his own, the diploma or certificate, or a forged affidavit, or identification of another. But the penalties are not to be enforced until a period of six months after the passage of this bill. Provided that the provisions of this act shall not apply to those that have been practicing medicine five years in the state. It will be seen a strenuous effort has been made to avoid discriminating against any school or system of medicine, simply requiring that each applicant for registration shall be a graduate of a reputable medical school. If not a graduate, and if he has not practiced medicine in this state for five years, he must submit to an examination as to his qualifications by the State Board. It asks for no favoritism or oppressive legislation, nor does it make war upon the *non-diplomated* doctors, for every person recognizes the fact that there are a number of physicians well prepared and eminently qualified by hard study and close application to practice medicine who never possessed a diploma nor ever saw the inside of a medical college. The existing state law already demands the registration, and contains the names of that class. And the present bill extends them the right to practice and makes ample provisions for the same. Could it do more? Can it ask less? But there is an element, who by fraudulent pretensions and machinations parade undeservedly an honorable title, and by the aid of flaming posters and the spread of printer's ink, practice upon the credulity of the public to its incalculable injury. It does ask, with reasonable cause, for such legislation as will afford some protection to an honorable profession and community at large against the nefarious impositions of these pretenders. In short, it means war upon fraudulent doctors and bogus diplomas.

SOCIETY PROCEEDINGS.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, March 8, 1883—DR. JAMES TYSON, President, in the Chair.

A UNIQUE SPECIMEN OF OSSIFICATION AT THE AORTIC ORIFICE.

Exhibited by DR. J. T. ESKRIDGE.

It was sent him from a distance, and consisted of about one inch of the cardiac end of the thoracic aorta, the aortic semi-lunar valves, and the immediate portion of the heart. The specimen was removed from a man, who, aged about seventy, had suffered a number of years from severe heart symptoms. The walls of the large arteries were thickened, rigid, and contained numerous deposits of inorganic matter. The left ventricle was enormously enlarged. He was unable to obtain any information with regard to the condition of the cardiac valves other than those of the aortic orifice.

Description of the Specimen.—The aorta, where it surrounds the valves for about half an inch in extent, is a hard, unyielding substance of fibrous tissue and calcified and ossified matter. The valves in several places are about one-fourth of an inch thick, and seem to have been almost entirely transformed into bone-like material. They are rigid and immovable, and have almost completely cut off all communication between the heart and aorta. One of the leaflets, about three-fourths of an inch in all directions with its vegetations, stretches across the aorta, lies against and is apparently adherent to the other segments of the valves, the latter being curled upon themselves. The central portion of the aorta is entirely occluded, and only two small openings through which the blood could have escaped from the left ventricle are seen between the valvular leaflets near their peripheral attachments. The larger of these holes admits a flattened probe three mm. wide by one thick; the smaller is about two-thirds as large. Three other smaller orifices have existed, but these were obliterated

before death by a thin, fibrous, transparent membrane, which is still seen. The valves on the cardiac side are tolerably smooth but on the aortic side they are very rough, one of the leaflets supporting a vegetation 10 mm. long. One of the segments of the valves is adherent to the inner coat of the aorta for about half an inch in extent, the free end of the valve being folded upon itself, and pointing towards the nearly closed aortic orifice. After macerating the specimen in water for forty-eight hours, the diseased valves still remain inflexible.

DRS. FORMAD, DUNN, GRIFFITH and EDWARDS reported having similar or nearly similar cases. DRS. TYSON and NANCREDE called in question the correctness of calling the disease *ossification* of the valves, as it was in reality a *calcification*. DR. SHAKESPEARE concurred in this view, and thought that ossification rarely, if ever, occurred in this situation.

DR. ESKRIDGE said that Hayden (*Diseases of the Heart and Aorta*, vol. ij, p. 839) referred to bony deposits in the aorta and its valves as follows: Sir Dominic Corrigan exhibited before the Path. Society of Dublin (see *Proceedings*, vol. ij, new series, Feb., 1864), the heart of a young woman, in which the root of the aorta had undergone complete osteoid transformation; it was likewise greatly dilated, and the aortic valves had been rendered thereby inadequate. During the patient's last illness a systolic murmur, of metallic quality, appropriately designated a "trumpet bruit," was audible at the base, and in the ascending aorta and carotid arteries; there was likewise a soft diastolic murmur. He regards a "trumpet bruit" as absolutely diagnostic of bony deposit in the aorta, either in the form of a "rim of bone," or a "projection or tongue of bone." In the same paragraph Corrigan refers to Dr. Banks' specimen of a "tongue of bone" projecting into the aortic orifice.

REPORTS OF THE COMMITTEE ON MORBID GROWTHS.

"A microscopic examination of a section made from the growth removed from the uterus, and presented by Dr. Parrish, Dec. 28th, 1883 (vide Feb. COURIER, p., 161), shows it to be adenomatous in structure, consisting of small cavities or spaces lined with cells, which cavities are separated from one another by fibrillar connective tissue." "A section of the lymphatic gland presented by Dr. Parrish, Dec. 28th, 1882,

shows that its normal structure is metamorphosed into that of a carcinomatous nature, consisting of an alveolar fibrous stroma having the spaces filled with cells of an epitheliomatous type."

A TUMOR COMPOSED OF MILIARY TUBERCLES OF THE
SUBCUTANEOUS ADIPOSE TISSUE CONNECTED WITH
ONE OF THE ANTERIOR CUTANEOUS BRANCHES
OF THE LUMBAR NERVES.

Exhibited by DR. NANCREDE.

The patient from whom this truly unique tumor was removed was a young girl of eighteen years of age, who for four years past had had occasional coughs, with at times some bloody expectoration, but was able to attend to her occupation of housework. Her family history was not characteristic in any way. About one year since she thought that she strained herself, since when she has been subject to severe attacks of abdominal pain, which extended to various portions of her body. She was admitted to the Female Med. wards of the Episcopal Hospital last fall, where dullness on percussion and harsh respiration at the apex of one of the lungs was detected. During December, 1882, the pains increased, and the right thigh became flexed upon the abdomen. A small, exquisitely sensitive, nodulated tumor was now detected just to the outer side of the right rectus abdominis. Dr. Morris J. Lewis, by whose kindness I am enabled to present this specimen, then asked me to see the case with him. Under ether, I found a nodulated mass, beneath but attached to the skin, and freely movable upon the deeper parts. I then thought that the growth was one of the ordinary, so-called neuromata, i. e., usually fibrous growths in connection with some nerve, and that the pains were reflex, as was also the flexion of the thigh. Feb. 20th, 1883, I accordingly removed the growth, which, to my surprise, was markedly infiltrated, and only in one spot in any sense encapsulated, where it evidently had developed around a small cutaneous nerve and artery. The wound did badly and has left an indolent ulcer, *but all the reflex pains and flexion of the thigh have disappeared*, while the lung is breaking down, yet the patient is gaining flesh, and looks and expresses herself as much better, and thoroughly satisfied with the results of the

operation. I have termed this growth "unique," because I believe that none such have been reported, i. e., subcutaneous masses of tubercle, large enough to require the surgeon's knife and liable to be mistaken for other neoplasms. The present growth was about an inch in its various diameters, as far as could be estimated. Microscopically, sections show fibrous and adenoid tissue with giant cells, according to the kind report of my friend Prof. Smies, whose observations have been confirmed by Dr. Formad and other pathologists as well as myself.

DR. G. G. DAVIS said that he had seen a somewhat related case in the clinic of Prof. König, of Göttingen. A young man had a subcutaneous tumor just above and to the outer side of the patella. It was about one inch and a quarter in diameter, and perfectly circumscribed. It, and a portion of the joint-capsule, including the part to which it was attached, were excised antiseptically. On the synovial membrane were found a number of what appeared to be miliary tubercles. There were no other evidences of tubercular disease, and he recovered with a good, movable joint. Prof. König regarded the case as one of true localized tuberculosis. He examined the excised portion microscopically. The tumor was hard, but had undergone cheesy degeneration.

DR. NANCREDE thought that this interesting case related by Dr. Davis still left his own unique, as Prof. König's case evidently had its origin from the synovial membrane, which was so closely related to the other serous membranes, which, as is well known, are so very prone to miliary tuberculosis.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting Feb. 15th—President T. L. PAPIN in the Chair.

Dr. Boisliniere read the regular paper of the evening, on "*The Treatment of Chronic Uterine Disease.*"

Dr. Papin remarked that he was glad to have heard the views expressed by *Dr. Boisliniere*, and he agreed fully with him

that every specialist ought to have a preliminary training as a general practitioner before devoting himself exclusively to one branch. It is absolutely essential that a specialist build upon the foundation of a thorough medical education, together with practical experience. Without this preliminary training, the young specialist is disposed to take a one-sided, and often very erroneous view of disease. The essayist had mentioned a case of iritis by way of illustration, and singularly enough had described a personal experience of the speaker in regard to this very disease, in which a young oculist had made a very serious blunder. The latter physician, thinking only of the eye, had treated a case of iritis in a gentleman friend of his without any reference to the constitutional condition of the patient, and had hence overlooked the fact that he was the subject of constitutional syphilis. The result was, that the patient at the end of three weeks quit the oculist and came to him, when he was speedily cured by appropriate constitutional remedies.

Dr. S. G. Moses said that he considered the paper read by *Dr. Boisliniere* not only an able production, but a most valuable one. He was particularly gratified at the very conservative and timely views expressed by a gentleman so well known in the profession and in the field of gynecology. He hoped that the paper would be extensively read, and it was unnecessary to say that it could not be read without profit.

Dr. McPheeters desired to congratulate *Dr. Boisliniere* upon his very timely remarks; he considered this a day of hyper-specialism. There are too many young men who rush into specialism without a previous general training, and who are therefore naturally prone to overlook everything except their specialty. Such men look at every malady through the perverted optics of the specialist, and hence fall naturally into gross errors of both diagnosis and treatment. He agreed heartily with *Dr. Papin*, that before a man can become an enlightened specialist, he must have devoted some time to the general practice of medicine; he must be a practical man, and finally drift into the one particular branch which circumstances and his peculiar tastes and skill best adapt him to follow. Such a man has a solid foundation upon which he may build, and under such circumstances will prove a blessing to his profession and his patients.

Dr. G. A. Moses, while not claiming to be a run-mad specialist, was not disposed to do away with them or to join in the cry against them. It is true, as has been remarked, that the pendulum has perhaps in some instances swung too far, but it is only by a study of the extremes that we can arrive at a happy medium. He considered *Dr. Boisliniere's* paper a most valuable one, but thought that it was rather too brief to deal fairly with so broad a subject. There was certainly a tendency with all of us to drop our extreme views and modify our practice as we grow in age and experience. In regard to chlorosis, he was not inclined to look upon it in all cases as a disease, but rather to regard it as a symptom, as a secondary result, often dependent upon some trouble which may be removed by appropriate local treatment, in conjunction, of course, with general remedies. American gynecologists, many of them at least, have paid especial attention to the surgical diseases of women, while on the other hand practitioners upon the continent of Europe, like *Scanzoni*, *Courty* and others, have laid more stress upon general therapeutics; such authors are growing more in favor daily.

Dr. Engelmann would have been better pleased had *Dr. Boisliniere* gone more fully into details, and was sorry he did not borrow his illustrations from the field of gynecology rather than outside diseases, as in the case of *iritis*, for example. He thought the allusion to *Scanzoni* by *Dr. Moses* was probably not a happy one, for somehow *Scanzoni*, to his personal knowledge, has had many unfortunate results. A good many of his patients, treated on the conservative plan, have gone away unrelieved, and been cured by others under operative interference. The gynecology of Europe is very different in many respects from the teaching even of such men as *Thomas* and *Emmet*, to say nothing of *Sims*. I find many cases yield to operation, which I had failed to relieve by other measures in the way of general treatment.

Dr. G. A. Moses.—But you must remember, doctor, that *Dr. Boisliniere* in his paper excepted traumatism and many other purely surgical affections.

Dr. Engelmann.—Of course there are many cases which can be well and even better managed without local treatment; this is especially true in the case of virgins.

Dr. Ford considered the position taken by *Dr. Boisliniere* the true one, and such as ought to be taken by all educated gynecologists. In all cases the proper course is to look at a malady in all of its bearings; the constitutional peculiarities of every patient should be fully inquired into. No one could be considered a properly trained physician who failed to take cognizance of all these points; we should always have an eye to the diathesis and other modifying conditions surrounding a case. While this is attempted, it must be admitted that it is often imperfectly done. There is too little deep thinking, together with a growing tendency to run after the purely practical, especially surgery; hence specialism, to which we owe a good deal, has in many instances been pushed too far. No man should practice a specialty until he is competent through study and experience to properly trace cause and effect.

Dr. Papin said he was disposed to accept in many respects the pathological views of the late *Dr. Linton*; he believed many affections charged to reflex disturbances of the nervous system were in reality rather due to qualitative changes in the blood. Take, for example, a young girl with leucorrhœa; she suffers from a drain which in the course of time brings on a series of disorders, due to poverty of the blood, such as dyspepsia, constipation, neuralgia, hepatic derangement, etc. In his opinion bad innervation less frequently influences the blood than bad blood influences the nerves. In many cases simple local applications cut off waste, and thus cure disease. Leucorrhœa is often due simply to passive congestion, brought about by displacement of the uterus; in such cases the discharge acts as a relief to the turgescient vessels. The remedy in such a case is replacement of the uterus; a properly fitting pessary will often act like a charm.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Feb. 20th, 1883—*DR. BRIGGS* in the Chair.

IRREDUCIBLE SCROTAL ENTERO-EPIPLOCELE.

Under the call for specimens, *Dr. Prewitt* presented a mass of omentum weighing 44 oz., and stated that it formed a por-

tion of a scrotal entero-epiplocele occurring on the left side, for the relief of which he had been consulted in December last by a gentleman from Kansas. The patient was of large abdominal girth, weighing fully 300 lbs.; the protrusion was of long standing, was irreducible in character, and, from its bulk, was cumbersome and annoying, aside from the danger of strangulation to which he felt it was consequently liable. The penis was greatly retracted, and the sufferer was anxious for relief. The diagnosis of entero-epiplocele having been made after careful examination, the operation was performed under chloroform. On opening the sac, it was found that the omentum was firmly adherent to its walls within the scrotum, while the gut was free. The bowel was carefully returned into the abdominal cavity after having been freed of omentum, the latter was then carefully dissected out and removed, and the opening in the abdominal walls closed with sutures. Several days after the operation, in consequence apparently of restlessness and imprudence on the part of the patient in getting out of bed, his temperature rose to 103.5°, which was accompanied by some cellulitis of the scrotum. This subsided, however, and he returned home on the ninth day quite well, with the exception of slight existing suppuration and some of the sutures remaining non-detached. No truss could be applied, but the part was carefully supported by means of a belt.

In commenting generally on hernias such as the one described, the speaker said that of course the proper treatment was the use of suspensory bandages, well laced up to prevent further protrusion. He had been induced in the case narrated to resort to operative measures, both by the solicitude of the patient and the consideration of the possibility of the strangulation occurring when the patient was possibly remote from skilled aid; or, at least, that the operation might be necessitated under conditions more disadvantageous to him than when he (Dr. P.) was consulted.

Dr. Todd inquired of *Dr. Prewitt* the cause of the more frequent occurrence of epiploceles on the left side, stating that several instances of hernias of this kind had recently fallen under his notice in the dissecting room. In reply *Dr. Prewitt* confessed his inability to satisfactorily explain the cause.

Dr. Holland asked *Dr. Prewitt* regarding the cause of the irreducibility of the hernia in the case he related, as to whether it was due wholly to the strength of the adhesion formed, or partly to some other cause.

Dr. Prewitt said that besides the adhesions mentioned there was a second smaller sac with constricted neck, containing only omentum, which resisted all efforts at reduction.

Dr. Holland then gave the details of a case of scrotal hernia treated by him some years ago. The patient was a laborer aged 24 years, and had a rupture of indefinite age. The hernia becoming strangulated in consequence of a violent muscular effort, an operation was resorted to after failure of efforts at reduction. On opening the sac the omentum was found firmly adherent to its wall, and both bowel and omentum were in an almost sloughy condition. The bowel was detached from the omentum and returned into the belly; the latter was left in situ in the scrotum, where it formed a sort of plug to the opening, and the result was perfect recovery with apparently a radical cure of the hernia; at least, several years have elapsed since the operation and the rupture has not returned, although no truss was worn, and the man is engaged in work where heavy lifting is often required.

Dr. Briggs asked *Dr. Prewitt* if he had ever used the infusion of white oak bark for the radical cure of hernia, as recommended by *Heaton*, and received a reply in the negative.

Dr. Prewitt went on to say that to leave the omentum in the sac was the common practice in such operations, as in long unreduced hernias the omentum becomes in effect a foreign body. A very important point to be remembered before returning a protruded gut is to see that no portion of it is constricted, and that care must be observed in incising the epiploon, lest concealed knuckles of intestine be injured by the knife. A case in point was instanced by the speaker where the bowel narrowly escaped serious injury through neglect of the surgeon to observe proper care in this respect. In answer to a question, *Dr. P.* said he did not have much faith in operations for the radical cure of hernias, as recommended by *Wood*, *Heaton*, and others. Their effect is simply a closure of the opening with a mass of hypertrophied tissue, like a plug, which tends to give way, the cure not being a real one, inasmuch as a truss was often necessary.

Dr. Holland inquired of the speaker what he expected would be the result in the case that he (Dr. P.) had reported. Would not the hernia return in the same site, or did he deem it a radical cure?

Dr. Prewitt replied that he could not see how a more radical cure in such a case could be affected, although he had advised the patient always to wear a truss. He did not anticipate that the weight of remaining omentum, as suggested by Dr. H., would force out the plug of tissue now occluding the abdominal opening.

In consequence of some indefiniteness of expression occurring in the course of the discussion, the chair suggested that the speakers define precisely what they respectively understood by the radical cure of hernia; and in complying Dr. Prewitt said that the result of an operation having this end in view should be the restoration of the abdominal walls at the seat of injury to their original integrity, their power of resistance to pressure exerted from within to be the same as before any rupture existed. Dr. Holland gave his assent to this definition.

Dr. Gehrung remarked that the descent and presence of omentum stopping the opening, provided no constriction occurred, often more nearly approached a radical cure than was the result of an operation having this end in view.

Dr. Todd, in answer to an inquiry by the chair, said that the specimens observed by him in the dissecting room threw no light on this question, as they were quite small and possibly not recognized as hernias during life.

Dr. Holland desired information as to the results obtained in recent hernias by the early use of the truss as a means of permanent cure.

Dr. Prewitt asked him if he thought the patient on whom he (Dr. H.) had operated was now secure from a return of rupture? Being answered in the negative, he went on to say that intermittent pressure by the so-called radical cure trusses resulted in tissue thickening, but that there was no real restoration of the muscular and other structures normally forming the walls of the abdomen. That while hernia in children is often radically cured by means of the truss, possibly through a stimulation of the developmental process, the belief with him pre-

vailed that the hernial patient was always liable to recurrence of the rupture if no truss was worn; as the tissues involved constantly tended toward a thinned and weakened condition, inviting sooner or later a return of the protrusion.

Dr. Holland contended that he did not understand the radical cure of hernia meant the restoration of the injured part to a condition better than had ever before existed, as the remarks of the preceding speaker would seem to employ; this assumption did not hold good as regards results following any other traumatism or morbid process, as for instance a broken arm or a pneumonia, where the part affected may perhaps always exhibit some weakness as the result of the injurious impression received; and, hence, although termed cured, might be the elective site of similar lesions in the future, should the efficient cause again be applied.

Dr. Leete spoke of the treatment of hernia by the method of invagination, which sought to repair the lesion by closing the opening and strengthening the abdominal walls to the point of normal resistance by means of a plug of tissue; and the practical failure of this mode of treatment as regards a permanent cure was remarked.

FIBROID OR FIBRO-CYST OF UTERUS AND APPENDAGES.

Dr. Engelmann presented a specimen of uterine fibroid removed from a patient who was aged 44 years, and who was the mother of two children, the younger of whom was 18 years old. She had suffered agonizing pain for two years previous to the operation, and a discharge of putrid pus was more or less constantly present, which came apparently from the cavity of the womb. She suffered greatly at intervals from sudden paroxysms of excruciating pain, which the most powerful anodynes scarcely sufficed to relieve. She had come from Kansas City to be operated upon, and while the prognosis was discouraging, there was a possibility that relief might follow the operation. The tumor was of large size, reaching on the left side two inches above the umbilicus, and while the cavity of the womb seemed normal, its body was forced over to the right. There was an impacted mass in the cavity of the sacrum, and while the symptoms pointed to a uterine fibroid, there was a question whether it might not be a solid tumor of the ovary, or possibly a fibroid of the womb in connection with an ovarian fibro-cyst.

There were no adhesions to the abdominal walls, and it was hoped that in operating the mass in the pelvis could be lifted out and removed. A free incision was accordingly made and a large white fibrous mass was exposed having no apparent pedicle, and which involved the uterus and all its appendages. It was found to be so firmly adherent to the surface of the hollow of the sacrum as to resist the most strenuous efforts at removal, its firmness not being overcome by efforts which lifted the body of the patient off the table. Finding enucleation impossible a pedicle was formed, and after cutting out a deep wedge-shaped piece the stump was ligatured with cords passed through it by means of a needle. The patient died in eight hours after the operation, and the post mortem showed the growth of the mass down into the pelvis to the end of the sacrum—the tumor conforming to it in shape—the inferior process of the growth reaching so low as to cause a prolapsus of the anterior wall of the rectum. It resisted all attempts to pull it out, and had to be cut away in pieces, so firm was its attachment to the surface of the sacrum, the adhesions being greatest low down in the pelvis.

In commenting on the case, Dr. E. said a reason for undertaking the operation was the hope that the growth could be lifted out—there being no adhesions to the abdominal wall—as he had seen several cases where solid tumors had thus been removed; but this reasonable hope was defeated by the presence and strength of the pelvic adhesions.

Dr. Moses said the developments of the case in the course of the operation surprised none more than those who were engaged in its performance. The diagnosis was not fully made, and, even corrected as it was during the operation, was not yet perfect, as some doubt existed as to the real character of the growth—whether it was primarily uterine or ovarian. He thought at first it might be enucleated, but this was found to be impossible. In the speaker's opinion the case demanded operation provided the slightest chance of successful removal of the growth was present; and he thought no one concerned in the case had cause to regret the course pursued even in view of its unfortunate termination.

Dr. Prewitt, at the suggestion of the chair, related a case of abdominal tumor occurring at the Good Shepherd Convent

which came under their joint care, where the diagnosis literally depended on a single hair. The tumor was one of considerable size, with fluctuation at a certain point, and it pressed upon the bowel to the extent of causing total obstruction. Aspiration was resorted to, and a small quantity of fluid was withdrawn, accompanying which was a hair which remained firmly in the puncture, where it served as a means of drainage. Its appearance of course revealed the presence of a dermoid cyst. Inflammation followed the tapping, and it was decided to open the cyst and then proceed as might be thought best after it was exposed. An incision was made and a mass of hair was removed. It was deemed best not to attempt removal of the growth, but the incision was left open and after the discharge of some teeth, followed later by the sloughing off of the lining membrane of the sac, the patient made a perfect recovery and is now well. The fluid withdrawn from the cyst was examined microscopically and some fat crystals were found. The interesting feature in the case was the fortunate appearance of the hair in the wound made by the aspirating needle, without which the diagnosis of a dermoid cyst would have been impossible.

THE CINCINNATI TRAINING SCHOOL FOR NURSES is announced as formally opening a six weeks course of instruction at the Cincinnati College of Medicine and Surgery March 26th. It is proposed to give instruction by "didactic lectures and, as far as possible, by practical illustration," on general hygiene, general principles of nursing, general and special dietetics; nursing of surgical cases, of contagious and infectious diseases, of children and of lying-in women; popular anatomy, physiology and chemistry.

We should be glad to speak in terms of unreserved commendation of such an undertaking, but, in our opinion, it is a misnomer to speak of a *training school* where provision is only made for "practical illustration," "so far as possible." Certainly, for such purposes as this, the provision for practical illustration and for securing practical experience, either in the wards of a hospital or otherwise, is the first essential for success. If such a training school could be connected with that admirable Cincinnati Hospital, as the school in Chicago is with the Cook County Hospital, it would do a work that all would approve and endorse.

FOREIGN CORRESPONDENCE.

TREATMENT OF FRACTURED PATELLA—MR. LISTER—HOSPITAL
FOR HIP-JOINT DISEASE—THE TREATMENT
THERE ADOPTED, ETC.

MR. EDITOR:—Is the treatment of fractured patella to be rewritten? Mr. Lister says that osseous union should now be the rule as in the past it has been the exception, and that in his present practice it is the result he expects. Under the spray he freely cuts down upon the bone, and wires the fragments together. This cannot be done without opening up the joint. But in this, which formerly surgeons believed to be homicidal, he is fearless.

Listerism, by placing the danger at a minimum, has certainly rendered possible many operations upon the bones and joints which a decade since would not have been attempted. In this particular field there is no question as to the great advantage it has conferred, whatever may be the opinion as to certain operations upon the soft parts where, it is deemed by some, cleanliness, not antisepsis, is all that is necessary. But I do know that the chronic abscess, which formerly was a bugbear to the surgeon, can now be opened under the spray, etc., with scarcely a rise in the temperature.

Mr. Hutchinson, of the London Hospital, claims that the obstacle to close apposition of the fragments in fractured patella is the effused blood and synovia in the joint, and not the traction of the quadriceps extensor upon the superior fragment. He proposes to get rid of this fluid by applying continuous cold to the part for some days—ten if necessary. This secured, he applies a posterior splint to the limb and holds the fragments together with adhesive plaster, and leaves the dressing undisturbed for six weeks. He claims bony union in one-half his cases, and close fibrous union in the remainder. The patient is allowed to get up in six or eight weeks, but is furnished with a patella apparatus or plaster of Paris dressing,

not especially to hold the fragments together, but to keep the limb extended, and this had best be continued for five or six months. During the early treatment, manipulation of the bone should not be allowed, lest the new union be disturbed.

This idea of fluid in the joint, as the cause of the separation of the fragments and the obstacle to opposition, is not peculiar to Mr. Hutchinson. Trelat, of the *Hospital Necker*, taps the joint to get rid of the fluid; Guyon and Tilleaux blister, with the same intent. And now, if this theory is true, we can understand that as Mr. Lister opens the joint to wire the bones, incidentally the fluid escapes; thus contact of the fragments can be had, and the wire becomes retentive.

A few days since I was present as the dressing was permanently removed from a case that had been wired (strong silver, passed obliquely through the fragments, twisted and the ends bent down) some six weeks previously. I could not detect any separation of the fragments, though the line of union was quite evident. The external wound was well healed, and the wire could be felt through the skin. Patient could voluntarily extend the leg.

Mr. Lister tells me he has had seven cases thus treated, all resulting in bony union, and that the report of his having lost a case from thus opening the joint was not true. He is still an enthusiast in regard to the details of antisepsis, and applies the dressings himself. This personal attention to every particular is one chief cause of his success. Many operators have the spray too near, deluging the part and the surgeon with water, and interfering with a clear vision of the limb. The protective should be applied to the wound before the surrounding parts are cleansed—sponged off without flushing with water. He is using eucalyptus gauze dressing, also boracic lint.

The operations I have seen under Mr. Lister—removal of portion of astragalus, removal of head of radius, wiring an ununited congenital fracture of clavicle, opening into the hip-joint for dead bone, three amputations, osteotomy for deformity from rickets, cancer of breast, tumor of antrum and several others—have all done remarkably well.

In operations upon the limbs, exsections, amputations, etc., Mr. Lister does not employ the preliminary rubber bandage of

Esmarch, claiming that the part becomes sufficiently exsanguinated by raising the limb vertically for a few moments before applying the rubber cord. To the ends of the latter, in lieu of hook and chain, tapes are fastened for the convenience of tying. Mr. Heath, of the University Hospital, omits, in resection of the elbow, both bandage and cord, believing that after their use there is a greater tendency to oozing of blood than without their employment.

Before quitting the subject of Listerism, I might add that Mr. Thornton stated, a few days since, that he had reached his three hundredth case of ovariotomy, consecutive, under antiseptis, with the following mortality: First hundred, 12 per cent; second hundred, $7\frac{1}{2}$ per cent; third hundred, 5 per cent; average, 8 per cent. I understand that Mr. Lawson Tait's last hundred was 3 per cent.

In a former letter I referred to the great number of general and special hospitals in beneficent operation here; to the maintenance of which the benevolent inclined citizens voluntarily contribute thousands of pounds annually; to which a whole army of the most highly educated and skilled physicians and surgeons give their professional services; to which many cultured ladies devote their lives as nurses and managers, and where millions of the sick poor are relieved without cost. I am well convinced, from personal observation, that these charities are much abused, many receiving gratuitously services for which they could well afford to pay. As the best medical talent is to be found in these institutions, necessitous people attend both the in and out door departments with confidence. The professors and teachers of the schools cannot greatly complain, as the rivalry and *esprit du corps* prompt them to obtain as much clinical material as possible, and to attract many to their respective institutions. Or it may be the medical men have but little voice in the matter. As an inducement for the benevolent to contribute largely they are permitted, by the payment of a certain sum, to recommend for treatment, or such benefits as the institution affords, some person, and it is not always that the really deserving poor are alone selected for such aid. This subject of abuse of medical charity is a difficult one to properly adjust, and yet a change is imperatively demanded, both for the sake of the general practi-

tioner (who may be so unfortunate as not to be connected with some institution), and for the sake of the public at large.

Among the "special" hospitals referred to above, my attention has been called to the Alexandra Hospital for children with hip disease, in Queen Square, W. C., organized in 1873, and growing out of a necessity incident to the plan of treatment advocated by most of the metropolitan surgeons for hip-joint disease, namely, *recumbency*, running through a period of many months, possibly years. The general hospitals could not afford to give up beds to such cases for so long a time, nor furnish the peculiar nursing best adapted to such treatment. This long recumbency seemed to demand the asylum rather than the hospital. Operations being rarely demanded, the treatment became largely routine, and lady nurses under the occasional visit of the medical officer could well care for the cases.

A benevolent lady, who as a nurse in a children's general hospital had observed how these cases were dismissed uncured, and how, often, they were even denied admission to the wards, secured a few cots in a convenient dwelling, and threw herself into the work of organizing an institution for the treatment of this special class of cases. The result, as seen to-day, is a large hospital pleasantly located in a quiet city neighborhood, with seventy well cared for inmates (patients), and with a branch institution situated in the country, for those children demanding better air, etc., with twenty beds. The Princess of Wales (who is spoken of as kind in heart and benevolent in act) contributed to the institution and became its "patron;" thus it took the name of Alexandra. The country department is called the "Helen" Branch, after the Duchess of Albany, lately a young mother, wife of the youngest son of the Queen, Prince Leopold, "patron" of the branch. One hundred and fifty children were treated in the hospital during the past year, and one hundred and eighty-three were attended at their own homes. The first number may seem small, but it must not be forgotten that from the peculiar treatment adopted each case remains long in the institution.

The success of this charity has been great, but we may not wonder at this when we realize how readily the sympathies of the benevolent and kind-hearted, especially among the

ladies, are aroused by a knowledge of the extreme suffering and utter helplessness of little children afflicted with joint disease. Uncared for, death or a miserably crippled existence awaits them; properly treated, a useful and comfortable life results.

The key note of this hospital treatment is rest to the joint, secured by confining the patient to the couch; the upper part of the body being loosely fastened to the bed-frame by flannel bandage or yoke to prevent the little one from arising, and the limb being extended by weight and pulley. In some cases a long splint, extending from the axilla to below the foot, to still further insure quiet, is applied. It is remarkable how tolerant these children become of this long confinement; two years is not exceptional. But, the local irritation being once subdued, the constitution recovers and holds its own under the good food and unremitting care and nursing given by the benevolent ladies in charge. Bed sores never occur. Abscesses are frequent, and are opened by the aspirator, or by knife, followed by hyperdistension of sac, with injection of carbolic acid solution, one to forty. The residual abscess, as described by Mr. Paget, always does well when evacuated. This abscess appears during convalescence, and is due to local irritation from cheesy matter remaining from an earlier collection of pus. An occasional death occurs in the institution, mostly from tubercular meningitis. This would seem to point to a constitutional blood taint.

When assured that the local trouble is well in abeyance, the patient is gotten up on a Thomas' splint, a favorite in many quarters here, or simply crutches, with a patten under the sound foot, are worn. Thomas' splint is not employed in this institution as frequently now as formerly. Exsections are rarely, if ever, performed, cases doing well without such extreme measure, especially if brought under notice comparatively early in their history.

I do not, at this time, propose to make any comparison between the plan of treatment outlined above, and that adopted by most American, or at least New York surgeons. The latter, early in the treatment, get their patients up and about on a portable splint, believing that the fresh air, and sunlight, and exercise (not of joint) thus obtained assist greatly the local

means employed to throw off the disease. This method is possible and practicable in four cases out of five, whereas the conveniences for instituting the former method can very rarely be had. As to results, I am willing to believe that so able a surgeon as Mr. Howard Marsh (whose kind attention I wish to acknowledge) may, with the superior advantages at his command of much means, and an institution well nigh perfect as regards its hygienic and nursing appointments, obtain by in-door recumbency results as excellent as this unfortunate disease admits of. But if it can be shown that as fair results can be had from the use of the splint, and at an expenditure of a fraction only of the money and attention required by the couch, then the former will certainly be the preferable treatment. But the statistics of a near future must determine this.

The London climate from its dampness and fogs is not elysium, but the weather from its mildness is certainly desirable. There has been no frost since my arrival; the grass in the parks has remained green and growing; the buds are well out on the bushes, and flowers are abundant. Parliament is open. Regent street and Hyde Park are gay with liveried equipages, bright colors and beaming faces. Jocund spring is now upon us, and we are anticipating much of pleasure in its possibilities.

Owing to the length to which I have drawn this epistle, several matters of professional interest must be deferred till our next.

A. J. STEELE.

CHANGES IN DRUGS.—It is well known that under certain conditions a number of toxic chlorine products may be formed in chloroform. In the opinion of French authors, morphia acquires its emetic powers by its partial transformation into apomorphia, and it has been proven that Fowler's solution loses arsenious acid in the course of time, probably under the influence of organic substances which have gained access to it. The acid is reduced, and escapes as arseniuretted hydrogen gas. Great loss may be occasioned in this way.—*Lewin's Accidental Effects of Drugs.*

COMMUNICATIONS.

"THE NEW YORK CODE OF ETHICS."

TO THE ST. LOUIS COURIER OF MEDICINE:—No question pertaining to medical affairs is to-day more distasteful and barren than that involving matters of professional etiquette. Medical ethics are resolvable into a few primary principles, plain and absolute, that are universally understood and have long been accepted as final; the profession throughout the civilized world has been and still is guided by them, esteeming them as forming a sort of Magna Charta upon which medical men stand together, assured of perfect mutual sympathy and consideration, while at the same time it forms the most effective and unyielding barrier against all forms of charlatanism. The advantage, the necessity of such a universal creed needs no demonstration; its impairment would introduce confusion, its abolition would be most unfortunate. Yet in the chief commercial city of America there is an open advocacy of a radical change in this creed, and even of its total obliteration; which advocacy is persisted in, although unconditionally condemned by the unanimous voice of the profession of the United States through its legally constituted representative, the American Medical Association.

This unhappy state of affairs compels further agitation in order that the fraternity of New York, in opposition to these revolutionary innovations, may be upheld in its efforts at their suppression.

The "New York Code" had its origin in New York City. At the meeting of 1881 of the N. Y. State Medical Society a committee of five (three being from New York City) was appointed "to revise" the American Code of Ethics. At the next annual meeting the report of this committee, under the form of the "New York Code," after a prolonged debate was adopted on a divided vote, and was declared to be the ruling code in place of the Code of the National Association, to

which it was flatly antagonistic. As a natural consequence, the New York Society received the heaviest censure that the National Association could impose upon it—its delegates were refused admission at the session of 1882.

The following extract illustrates the confusion of ideas that prevailed at the State Society meeting: The *Secretary* of the committee on revision insisted that “the report of the committee agreed in *all essential points* with the Code of the American Medical Association. The report gave no more liberality than did the American Code, especially with regard to consultations with homeopaths. He argued that homeopaths do not base their practice upon an exclusive dogma, and proceeded to show that the American Code did not, as it stands, prohibit consultation with the homeopaths. (Trans. Med. S., State N. Y., 1882, p. 47 and 48.) If the Secretary entertained such wild notions, what must have been the state of mind of the remainder of the committee whose report was adopted!

The section of the “New York Code” which negatives the whole spirit of the American Code, that is to say, the whole spirit of the profession, is this: “Members of the Medical Society of the State of New York, and of the Medical Societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity.” (By a “legally qualified practitioner” is meant, anyone who is in possession of a diploma issued by any body in possession of a state charter; there is substituted the notoriously indifferent and incompetent suffrage of political legislation, for the deliberate and responsible judgment of the profession.) The “emergency” clause is so palpably lugged in by the hair (it is not supposable that in New York City such stress is of so frequent occurrence as to necessitate the overturning of our established usages to meet it), that the first sentence of the section has been universally accepted as containing the essence of the whole “code;” it officially obliterates all those distinctions between legitimate medicine and quackery that the profession since Hippocrates has sacredly upheld, for its own protection as well as for that of the public. Whether the framers of this clause aimed at such a result or not, that is the outcome.

Considering the action of the New York Society, at the outset we are astonished that a state society of its own individual responsibility should feel itself at liberty, even were it upon a unanimous vote, to ignore so totally its relation to the profession at large as to throw overboard a fundamental principle, to which in common with all other state societies of the Union it had solemnly subscribed. The American Association has been termed a junketing body, in derision of its powers. Those who can see in the annual gatherings of the profession of the Nation nothing but an exaggerated picnic, strangely overlook its real function, which is to unify the fraternity by effecting a wide intercourse and mutual acquaintance; a very necessary condition of our national prosperity, one that tends to allay jealousies, elevate the whole body, and to destroy excess of local conceit, the real provincialism in a scientific body. The action of the New York Society has been properly described by one of its own members, as a secession. Such an example is lamentable, especially since one of the most prominent city members of the "committee on revision" stated in the debate, "We stand as a profession in this state in such a prominent position that we affect the peace and welfare of the fraternity all over the United States." This was in response to a vigorous argument from another prominent city member that all codes should be wiped out, and that "the Empire State should lead the van." It is much to be feared that the "imperial idea" vexes the spirit of some of the citizens of New York City, and that they are not sufficiently tender of the susceptibilities of "the provinces," as I recollect some dozen years back hearing in the lecture room one of those two gentlemen term all outlying regions of the North American continent.

In justice to New York City, it should be noted that at the last meeting, Feb'y, 1883, of the State Society, there was presented a petition from that city against the new code, containing one hundred and two names, including those of Alonzo Clark, Austin Flint, and others of like character. Also, in the state, nearly forty counties have already condemned the action of the State Society, while the majority of the others either had not acted at all, or their action had not been published (vid. *N. Y. Med. Journal*, Feb. 10 and 17). Can it be that motives of purely

local convenience and expediency are at the bottom of this secession?

But what are the arguments urged in favor of the New York Code? They should be of immense force and effect to warrant such a departure. The arguments most insisted upon are two in number: "Public opinion and the advancement of the age" is one; the other, "the policy of the state." The latter, by statute, in effect declares all holders of diplomas issued by chartered bodies to be upon the same plane (!) regardless of circumstances. This argument, certainly, may be discarded without further thought.

The argument based upon public opinion, progress of liberal thought, etc., is plausible, but that is all. We all know what public opinion is worth when turned to medical affairs. The laity is more prone to scoff at the characteristic delicacies of the profession than to respect the self-denial and high mindedness they imply. Public opinion is the grand asylum of charlatanism, from weather prophets to the traveling nostrum vender. Public opinion thinks a grand speculation was lost in not holding a royalty on vaccine matter; it believes in the loudest advertising, and thinks medical ethics pure quixotism. But then the "revised code" will tend "to the elevation of the profession, etc." A consultation among medical men is for the purpose of securing a more thorough scientific examination of an obscure morbid condition, with the view of initiating an improved scheme of treatment, or of confirming that already in force. Wherein is medicine, or the patient, to be benefitted by a consultation with a homeopath, for instance? Hahnemann distinctly declares that the cause of disease is unrecognizable, and not to be found, disease being a "spiritual aberration of our spirit-like life." Must not the practitioner, in consenting to such alliances, deny his own conscience, and degrade his calling? Because some may so forget themselves as to do this thing, it does not follow, as has been urged, that the profession should endorse such acts by a special provision in its organic law. The practice of medicine is something higher than a mere trade; there survives in its ethical laws a spirit of high-mindedness that makes it specially attractive to generous men—a spirit that shines in the Hippocratic oath as it does in the code of to-day. Nor

must we overlook the educating influence of a distinctly expressed code of moral law; it naturally leads to the highest results; while the absence of such a permanent bond encourages confusion and invites disintegration. "Entire liberty in individual action" pleasantly suggests the millenium, and therefore sounds well, but there can be no organization without some definite form of constitution, and that implies prescribed restrictions. In Rob Roy's times the individual seems to have enjoyed complete freedom from restrictive annoyances, since each was at liberty to follow

"That good old rule, that simple plan,
That they shall take who have the power,
And they shall keep who can."

Besides, it not to be forgotten that the privilege of "individual liberty" is associated with the necessary condition that the general welfare is always to be respected; otherwise, liberty means simply demoralizing license. If prominent specialists in New York City do not scruple to encourage irregulars (let it be by abrogation of the prohibitory clause in the National code, or by its total abolition), must they not, as one of their number above quoted says, "affect the peace and welfare of the fraternity all over the United States?" But there must be danger, even in New York City, in loosening the checks of the moral law, since the secretary of the revising committee, himself a prominent specialist of that city, declares (vid. *N. Y. Trans.*, 1882, p. 32-33): "If every qualified physician in the regular ranks always did what was right, always knew what was right to do, we should have but little need for a code. But experience has shown that physicians do not always know what is right, or, if they do, they do not always do it." As in New York City, so in the rest of the United States—so throughout a weak and erring humanity! Therefore the need of a written law, plain and uncompromising: Thou shalt not.

What now is to be done? The New York State Society, at its recent session, after a hot debate, and upon a close vote, has retained its "code" of license, in the teeth of wide remonstrance within its own borders.

Would it not be well for the secretary of the American Medical Association to issue circulars to all the reputable physicians of New York and Brooklyn, requesting their vote upon

the "revised code," with the view to lay the result before the Association at its next annual meeting, 1883? There is yet time. I suggest the metropolis, since there might not be time to consult the whole state, and, besides, the city originated the scheme, and this plan will establish its exact status there. Something effective should be done, if possible, before the next meeting of the American Association, so that the profession may know what further action to take. It is evident, from the nature and length of the debate upon it, as well as from the numerous and weighty protests against it, that the action of the New York State Society is not acceptable to a large and influential part of the profession of the state. This makes it all the more certain that the "revised code" was pushed through without affording time for mature consideration. The profession in opposition should lay its case before the National Association, appointing a committee of one or more for the purpose; this, together with the collective vote above suggested, will give substantial ground for definite action.

Very respectfully,

CHARLES A. TODD,

Secretary Missouri State Medical Association.

St. Louis, March 15th, 1883.

NOTES AND ITEMS.

MISSOURI MEDICAL COLLEGE COMMENCEMENT.

On the afternoon of Tuesday, March 6, an interested throng crowded the cheerful new Olympic, in attendance upon the graduating exercises of the class of '83.

The diplomas were presented to the class by Dr. John Moore. Next followed the conferring of honorary degrees, an "Ad eundem" upon Justin Steer, M. D., of St. Louis, and an "Honorary" degree upon E. J. Beall, M. D., Texas.

The first and second prizes in chemistry were conferred re-

spectively upon L. T. Riesmeyer and John H. Bryan, both of St. Louis, while Prof. J. P. Kingsley's prizes for the best essays on the "Causes of Infant Mortality" were awarded to S. J. Barker, of St. Louis, and R. H. Goodier, of Missouri.

Dr. Prewitt, alluding in jocose terms to the numerous floral designs sent by friends of the graduates, called them prizes which should be distributed to the favored recipients, representing the only flowery part of a doctor's career, which later years would so generously supply with thorns.

We can hardly agree with the experienced gentleman in this opinion. From his stand-point, forced into constant collision (as every prominent physician must be) with wrong and charlatantry, and brought face to face with so much that is weak and evil in suffering humanity, only to experience, in many cases, the grossest ingratitude in return for kindest, most skillful services rendered, he must often feel the sentiment expressed. But in the midst of suffocating battle-smoke one can hardly realize the wide extent of pure, clear atmosphere beyond the immediate scene of carnage, and while the public recognizes and realizes so thoroughly as at present the implicit confidence placed in one's "family physician," and the devoted reliance with which his patients cling to him in the midst of their sufferings, it will be slow to believe that the only rewarding flowers of his professional career are the ones that beautify his Commencement day.

The valedictory, an excellent address full of wise advice and practical suggestion, was given by Dr. John Snyder. Introducing his remarks with a comparison of the duties and relations in which the lives of physicians and clergy afford a remarkable similarity, and where they must walk hand in hand if truly carrying out the sacred ideal of either profession, he discoursed at some length upon the rigid ethical code to which reputable physicians subscribe. Though sometimes misunderstood—though misused and misrepresented by the knaves and fools, of whom, unfortunately, the profession contains some representatives—still, from its use and sacred guarding have originated and been perpetuated many of the most valuable characteristics of the brotherhood of medicine.

The clear outlining of conscientious responsibility for true

physicians, the unflinching courage and devotion to principle upon which Dr. Snyder laid great stress as of primal importance in worthily representing the grand profession upon whose duties these young men are now entering, could not fail to be helpful to those who listened to his forcible and interesting address.

ST. LOUIS MEDICAL COLLEGE COMMENCEMENT.

There are a few occasions in the year on which Mercantile Library Hall loses a trifle of its usual dinginess and gives a cheerful welcome to an audience. One of these is at the graduating exercises of St. Louis Medical College, when the profusion of floral offerings to the class brightens up the somber interior, and renders the stage an appropriate setting for the interesting scene enacted there.

The class of '83 numbered forty, besides whom were two graduates of the dental school. The orchestral music furnished was excellent, and pleasantly introduced the evening's exercises. The opening prayer was made by Rev. Dr. Eliot. The conferring of diplomas, by Prof. J. B. S. Alleyne, M. D., Dean of the College, was prefaced by an excellent address, in which the doctor wisely and in fitting terms laid before the students a summary of what their duties and aims should be as members of that profession upon whom rest heavily the vital responsibilities of society about them. He did not conceal from them the unrelenting toil nor arduous effort which must of necessity be their lot, but urged them on to conscientious, unflagging performance of duty, however monotonous or discouraging it might sometimes seem.

As the class withdrew from the stage, the curtain which had concealed the oil portrait of Dr. Hodgen was dropped, and the audience saw once again those strong, calm features, associated so intimately in the minds of all with exercises like these in days forever gone.

After music by the orchestra, the fine marble bust of Dr. Hodgen was unveiled; and an address in connection with this

ceremony, made by Dr. E. H. Gregory, opened with words which in tender memory and regret suggested those of Mark Antony: "He was my friend, faithful and just to me." The tribute given to the memory of the deceased was most true, touching, and appropriate upon this, the first occasion of his absence from exercises at which his ready tact and genial cordiality so especially fitted him to shine. Certainly the class of '83 need no more inspiring example toward untiring zeal and faithful devotion to their chosen profession than that afforded by Dr. Hodgen, and their attention was well directed to this fact by these words of his life-time friend and co-laborer.

Dr. Hodgen's loyal disposition toward his friends, and never-failing gratitude to those whose pleasure it had ever been to serve him, was well known in St. Louis, and illustrated by many an incident that loving hearts take pleasure in recalling. The same characteristic was this evening shown by his son, who, by the graceful gift of a beautiful floral design to Dr. Gregory, testified his grateful remembrance of a time of peril when the doctor's skillful hand was called in requisition to perform the operation that saved his life—the lad's father distrusting the steadiness of his own hand in a case where his feelings were so deeply involved.

After an encored selection by the orchestra, Dr. Boisliniere, laden with flowers, came forward to deliver the valedictory address. The genial doctor kept his audience in a merry mood while asking them to consider with him the relations of woman to the medical profession, and the duties of the profession toward woman. It was an amusing disquisition upon some phases of the first half of the question rather new to the audience, and his opinions upon the second half of his subject were epitomized, by his advice to the newly made physicians before him, in these words: "You should always treat woman with deference, and your first duty should be to find as soon as possible some agreeable, refined young lady, and marry her." The applause which followed this recommendation showed that he held the unreserved sympathy of both class and audience in this suggestion.

MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY.

The graduating exercises of the medical school, held on the evening of Feb. 28, were opened by fine orchestral music, in the presence of an interested throng of friends and citizens.

Dr. P. O. Hooper, President of the College, then introduced Gen'l R. C. Newton, who, though disclaiming the ability to deliver an entertaining address, kept his audience en rapport with his thought in an excellent talk full of wise and witty points. Referring to the lamentable fact that "the ancients knew nothing of the virtues of Peruvian bark, or of the pleasures of the pill and seductive capsule," he traced clearly the triumphal progress of medicine—despite the temporary disaster it experienced in the fall of the Ptolemies and the destruction of the Alexandrian library—to the prominent position held by the profession at the present day, adding some excellent words of advice to the young men soon to join the ranks of the most useful and self-sacrificing body of men known in any department of science.

Immediately after the conferring of diplomas on the class of four young men, Gov. Berry delivered to the students a well-timed address. Next followed the distribution of prizes for the best examinations on various topics—anatomy, surgery, obstetrics, practice of medicine, physiology, and for the best dried anatomical preparations presented by a student. Four of these prizes were carried off by Thos. F. Rutherford, of Clark County, who also received an honorable mention in still another department.

This was followed by the report of Dr. Hippolite, President of the Board of Visitors, in which he stated to the audience the tests imposed upon the candidates for graduation, and assured them of the rigid standard to which the faculty strictly adhered.

The valedictory address was given by Dr. Dibrell, who greeted the graduates as "fellow-soldiers in the grand army which is always working for the good of others." His advice was clear, practical and impressive, to the effect that true greatness in this grand profession is only attainable by the most assiduous care, arduous labor and unceasing, studious investigation.

COMMENCEMENT EXERCISES OF THE NORTHWESTERN MEDICAL COLLEGE AT St. JOE.—This college has graduated this session eighteen out of thirty-one matriculants. A higher standard than that of last year has been determined upon by the faculty. Up to this time, men who have practised successfully for three or four years have been allowed to graduate after a year's study. In future the two years course will be insisted upon.

We are informed that the Illinois Board of Health now recognizes the diplomas of this college which it would not do when they accepted anything less than two full courses of lectures. The Illinois Board of Health is doing a good work in just this way.

Dr. F. A. Simmons presented the diplomas. Dr. W. S. Chenoweth, of the graduating class, delivered the valedictory.

The exercises of the evening were closed by an address in behalf of the faculty, delivered by Dr. S. F. Carpenter, Prof. of Anatomy.

THE DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS will hold its semi-annual meeting in Library Hall, Pana, Ill., on Tuesday, April 24th, 1883. The following programme has been arranged:

Reports of committees: On Surgery, by C. T. Reber, M. D., Shelbyville, Ill.; on Medical Ethics, by S. T. McDermith, M. D., Cowden, Ill.; on Texas as a Health Resort, by T. D. Washburn, M. D., Hillsboro, Ill.

Essays: On Typhoid Fever, by C. L. Carroll, M. D., Edinburg, Ill.; on Rheumatic Fever and Complications, by B. M. Griffith, M. D., Springfield, Ill.; on Malignant Growths, by J. H. Miller, M. D., Oconee, Ill.; on Erysipelas, by Jno. Cook, M. D., Beecher City, Ill.; on Surgical Dressings, by T. J. Whitten, M. D., Nokomis, Ill.; on Metrorrhagia, by A. R. Small, M. D., Decatur, Ill.; on Spinal Fever, by T. G. Hickman, M. D., Vandalia, Ill.

The advisability of having but one meeting a year will be discussed and acted upon at this meeting.

Each member was consulted before being put on duty, consequently there is good reason to believe that a number of interesting papers will be presented.

A full attendance is desired.

W. J. CHENOWETH, M. D., President.

JNO. H. MILLER, M. D., Secretary.

ST. LOUIS COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

ANSWERS TO THE OBJECTIONS URGED AGAINST THE NEW PHARMACOPŒIA.

BY OSCAR OLDBERG, PHARM. D., ST. LOUIS, MO.

THE Pharmacopœia is the recognized standard authority by which medicines are identified, tested and prepared. Without such a standard the practice of medicine would be a blind and hazardous guess-work, because uniformity in pharmacy is all-important to intelligent medication. Every civilized country has one, and only one pharmacopœia.

In the United States as well as everywhere else, the Pharmacopœia is recognized by the courts of law, by legislation, the governmental departments, the incorporated medical and pharmaceutical colleges and associations, all works on materia medica and therapeutics, the medical and pharmaceutical journals, and all the thoughtful, intelligent, earnest men of the professions.

The present Pharmacopœia of the United States is clearly not that of 1830, nor of 1870, nor of any other date prior to the last revision; but it is the latest revision, published

last November. In any suit at law for alleged fraud or injury arising out of the sale or manufacture of spurious, adulterated, or inferior medicines, or from errors in dispensing, or from the use of too strong or too weak medicines, the standard by which the alleged falsification, adulteration, inferiority or error would be determined is the Pharmacopœia of the United States in every instance where the medicine in question is described in that work.

No previous pharmacopœia in this country has been as thoroughly the exponent of the will of the professions of medicine and pharmacy as the latest revision. The National Pharmacopœial Convention of 1840 consisted of twenty delegates from seven states and the District of Columbia; that of 1850 consisted of thirty delegates from seven states and the District of Columbia; that of 1860 was composed of thirty delegates from seven states and the District of Columbia; that of 1870 of sixty delegates from eleven states and the District of Columbia; and the last National Pharmacopœial Convention, which met in 1880, was composed of seventy-nine delegates from fifteen states and the District of Columbia. Twenty-three medical colleges, nine medical societies, eleven pharmaceutical colleges, and the three medical departments of the government—of the Army, the Navy, and the Marine Hospital Service—sent accredited delegates to the Convention of 1880.

For two or three years prior to the meeting of the last National Pharmacopœial Convention, vigorous discussion had been going on in the American Medical Association, the American Pharmaceutical Association, many local colleges and associations, and the medical and pharmaceutical journals, relative to the Sixth Decennial Revision. In fact, so active was the agitation of the subject that several lengthy pamphlets were separately published concerning it. The appointed time drew near, formal notices were published in all the journals, calling upon all the medical colleges and societies, and the colleges of pharmacy, to appoint their delegates, and the Convention met in due course.

That Convention appointed a Committee of Revision and Publication of the Pharmacopœia, instructed this committee as to certain general principles which were to govern the revision, and adjourned. Among the instructions given were these:—that “all measures of capacity shall be abandoned and quantities shall be expressed in *parts by weight*; except that in the case of fluid extracts the Committee of Revision and Publication shall have authority to adopt such process or processes as shall seem to it best.” These and all other instructions given by the convention to its committee were published in the medical and pharmaceutical journals and in the daily newspapers at the time, and met with general approval.

The Committee of Revision, consisting of twenty-five members, all giving their time, labor, and knowledge freely for the good of the professions and of society, completed the task imposed upon it, and obeyed the instructions it had received. Their work—the new pharmacopœia of the United States—was published last November.

The new pharmacopœia has been praised as no similar work was ever before praised. At the same time it has also been grossly misrepresented and misunderstood. The real causes for these differences of opinion are to be found in the abolition of fluid measures in all pharmacopœial working formulæ, except those for the preparation of fluid extracts, and in a direct reference to units of the metric system of weights and measures in some instances—the very features which were introduced by the committee in obedience to the specific commands of the National Convention.

That these innovations would receive the hearty approval of some and the equally hearty disapproval of others is natural. But some of those who most vehemently denounce the new pharmacopœia are misrepresenting facts and stirring up unreasonable opposition to the book among those who have never yet seen a page of it. Certain trade

journals, especially, are apparently determined to discredit the new pharmacopœia. That manufacturers and dealers who happen to have a large stock of the preparations of the old pharmacopœia to dispose of will continue unrelenting war until they have succeeded in unloading is to be expected, for the preparations and processes of the new pharmacopœia are so strikingly superior to those of the old that it would not do to let the new book gain the confidence of the medical profession and the drug trade too soon. But it is equally certain that the opposition from that quarter will disappear with the old stock.

The objections raised against the present Pharmacopœia of the United States are so few, so prominent, and so persistently repeated, that it seems well to analyze them to separate the truth from the prevalent misconception. We shall enumerate them in the order of their apparent weight, and answer them as we proceed.

It is charged, and echoed and re-echoed, that the strength of many important and potent remedies has been hazardously augmented in the new pharmacopœia. Well, the strength of several preparations *has* been somewhat increased; here they are:

	Dose of the Old.	Dose of the New.
Solution of Arsenious Acid,	5 minims.	4 $\frac{1}{8}$ minims.
Fowler's Solution, - -	5 minims.	4 $\frac{1}{8}$ minims.
Tincture of Opium, - -	13 minims.	11 minims.
Tincture of Aloes, - -	1 to 6 fl. drs.	$\frac{1}{8}$ to 2 fl. drs.
Tincture of Cantharides, -	10 minims.	7 minims.
Tincture of Capsicum, -	20 minims.	14 minims.
Tincture of Lobelia, - -	40 minims.	30 minims.

That is all!

If these changes are dangerous or likely to cause any injurious results, then the doctors and the druggists might possibly make a memorandum of them and bear these grave changes in mind. It might be bad to get six fluid drachms of tincture of aloes instead of two; in fact, those

who have to take a cathartic dose of that tincture would unquestionably rather have it all in two teaspoonfuls as in the new pharmacopœia than in six teaspoonfuls as in the old. Will any one seriously insist that the above table shows any tampering with the strength of the pharmacopœial preparations such as justifies formal notices to the effect that "the preparations of the new pharmacopœia will not be dispensed unless expressly specified by physicians?"

That all changes made by the Committee of Revision were made for reasons which in the opinion of its members were good and sufficient will probably be granted. The fact, however, that no objection has been made to any changes of strength in the opposite direction—reductions of strength—indicates that those who are so ready to condemn the Pharmacopœia have not looked into the matter sufficiently. As to the strength of standard medicinal preparations, uniformity is far more important than the particular degree of strength, and an unvarying standard is always to be preferred to the possibility that a stronger preparation will be used one day and a weaker one the next without the cognizance of the physician. Therefore, when, as seems to be the case in St. Louis, some physicians prescribe with reference to the preparations of the old and others with reference to those of the new pharmacopœia, while some pharmacists say they will only dispense the old and others that they will only dispense the new, it is easy to see that it matters little whether the strength of the preparations of the new pharmacopœia is greater or less than that of the corresponding preparations of the pharmacopœia of 1870, if there is any difference at all. Hence any great *reductions of strength* would be quite as harmful as any changes in the other direction. We will, therefore, assist the opponents of the new pharmacopœia by giving also a table of preparations of which the strength has been considerably diminished:

		Dose of the Old.	Dose of the New.
Vinegar of Lobelia,	-	40 minims.	55 minims.
“ Opium,	- - -	7	11
“ Sanguinaria,	-	15	20
“ Squill,	- - -	15	20
Tincture of Aconite,	- -	2½	3
“ Cannabis Indica,	-	10	17
“ Nux Vomica,	-	20	35
“ Stramonium,	- -	10	13
“ Veratrum Viride,		5	5½
Wine of Opium,	- - -	8	11

Of these preparations the tinctures of aconite and veratrum viride are the only ones used to any considerable extent.

The two tables given here do not include *all* preparations of which the strength has been either increased or decreased; but they do include all the greatest changes made, and it is hardly necessary to mention instances of less consequence than these. For further information readers are referred to pp. 454 and 455 of the pharmacopœia.

It is a curious fact that no fault has been found with the change in strength of vinegar of opium, which amounts to a reduction of over 33 per cent., while the increase in the strength of the tincture of opium, which amounts to only 15¼ per cent., has created such widespread excitement! The vinegars are, however, rarely prescribed.

For the sake of completeness we will also call attention to two instances in which defective nomenclature might prove to be the cause of serious harm. I refer to the fact that the titles “Extract of Aconite” and “Alcoholic Extract of Conium” were in the old pharmacopœia given to extract of aconite leaves and extract of conium leaves, respectively; while in the new pharmacopœia the same titles are given to extracts prepared from aconite root and conium fruit respectively. In prescribing these extracts the physician will do well to specify the extract of the

root, fruit, or leaves, as the case may be, the new extracts being several times stronger than the old.

A careful review of the whole subject leads us to the conclusion that six of the preparations of the old and of the new pharmacopœia ought perhaps not to be prescribed without specifying which of the two pharmacopœias is referred to, although in case of any injurious result from prescribing or dispensing the wrong preparation the druggist would have a strong defense in the event he dispenses the preparations of the new pharmacopœia, should the physician fail to indicate that those of the old pharmacopœia were intended. These six preparations are vinegar of opium, wine of opium, tincture of Indian cannabis and tincture of nux vomica, which were stronger as made by the old pharmacopœia than as at present official, and the extracts of aconite and conium, of each of which there are three kinds in actual use, all differing widely in strength. Pharmacists who dispense the new vinegar of opium, wine of opium and tincture of cannabis indica will be doubly safe, and if they will make up their minds to adhere strictly to the new pharmacopœia in every case, they will avoid all danger, and at the same time have the law, precedent and public opinion on their side; but they should never dispense extract of aconite or extract of conium without knowing which kind is wanted. This precaution was necessary before the new pharmacopœia made its advent, because we already then had two kinds of each of the extracts named which differed greatly.

So much has been said relative to the alleged increased strength of opium and its preparations, that an analysis of the subject will here be in order.

The pharmacopœia of 1870 required that opium, in order to be fit for medicinal uses, should *yield* at least 10 per cent. morphine "by the official process." This was the limit of poorness. There was no official limit of richness. Thus an opium containing 15, 18 or 20 per cent. morphine was still in strict accordance with the pharmacopœial requirements.

Probably not a score of the pharmacists of the United States have been in the habit of assaying their opium. Only one manufacturer has offered assayed opium for sale. His opium was aimed to contain $13\frac{1}{2}$ per cent. morphine, and he never sold any assayed opium containing less than $12\frac{1}{2}$ per cent., although he sold tincture of opium containing only four grains of morphine to the fluid ounce, which, if representing the prescribed quantity of opium, could have been made only from an opium yielding only $10\frac{3}{4}$ per cent. morphine.

The unassayed opium of the market, however, and the tincture of opium made from it in accordance with the pharmacopœia, were richer in morphine than the old pharmacopœia required, and richer than the only assayed opium preparations obtainable in the market. As a matter of fact, the standard morphine strength of opium adopted in the new pharmacopœia—from 12 to 16 per cent. morphine—is simply the strength of the powdered opium used in this country at any time of the whole of the period during which the pharmacopœia of 1870 was in force. Good Smyrna opium—the only kind imported in this country—contains from 12 to 18 per cent. morphine. Prof. Flückiger says that an opium found to contain less than 10 per cent. morphine should be suspected of being adulterated. The customs regulations of the Treasury Department, under a law of Congress, exclude from importation any opium which, in the moist, crude condition in which it is imported, contains less than 9 per cent. morphine; which practically excludes all opium containing when dry less than 11 per cent. All things considered, it is probable that the morphine strength of all powdered opium used in this country for many years has averaged about 14 per cent., and the Committee of Revision accordingly adopted that as the standard. Thus the pharmacopœial standard was raised up to the quality of the opium in actual use, but the opium itself, although corresponding to the new requirements, has not been changed at all, except that an

opium containing more than 16 per cent. morphine is excluded as too strong—a necessary precaution which the old pharmacopœia did not contain. In short, the new pharmacopœial standard for the morphine strength of opium is safer, and more in accordance with the quality of the drug that physicians in this country are accustomed to use, than the standard of the pharmacopœia of 1870.

As to the proportions in which the opium preparations are to be made under the new pharmacopœia, the new opium preparations are about $15\frac{1}{4}$ per cent stronger than those of the old pharmacopœia. The new tincture of opium represents 10 per cent. by weight of powdered opium, and as only about 60 per cent. of the opium dissolves in making the tincture (40 per cent. of inert residue remaining), we find that 1,000 grams of the new tincture consist of 940 Gm. diluted alcohol and 60 Gm. of the soluble matter of opium. Now, as 940 Gm. diluted alcohol measures at the ordinary temperatures about 1,016 cubic centimeters (the sp. gr. being 0.924), and as 60 Gm. of the soluble portion of opium in solution makes about 40 cubic centimeters, we find that 1,000 grams tincture of opium of the new pharmacopœia measures about 1,056 cubic centimeters. But 1,056 cubic centimeters is equal to 35.7 fluid ounces, and represents 100 grams or 1,543.23 grains powdered opium. Thus each fluid ounce of the new tincture of opium represents $1 \cdot \frac{543.23}{35.7}$ 43.225 grains of opium. This makes it almost exactly $15\frac{1}{4}$ per cent. stronger than the old tincture of opium, of which one fluid ounce represented $37\frac{1}{2}$ grains.

We have heard it repeatedly said that as the new tincture of opium represents 10 per cent. of powdered opium, each fluid ounce of 480 minims contains 48 grains of opium. Those who make this statement forget that 480 minims is a very different quantity from 480 grains. In other words, they forget that a pint is *not* a pound. That 480 grains of the new laudanum represents 48 grains opium is entirely correct; but 480 grains of that preparation is about 533 minims.

Therefore, the statement that the strength of the liquid preparations of opium has been increased 40 per cent. or more becomes reduced to an increase of $15\frac{1}{4}$ per cent. In other words, the average dose of the old laudanum being about 13 minims, the dose of the new laudanum is a fraction over eleven minims.

The average morphine strength of laudanum and deodorized tincture of opium, when made in accordance with the pharmacopœia of 1870 from the average grade of powdered opium which has been sold in this market for probably twenty years, has been six grains to each fluid ounce.

The next objection urged against the present pharmacopœia is that the abolition of fluid measures and the substitution of parts by weight imposes onerous labor upon pharmacists; and that gravimetric standards of strength are not in harmony with volumetric prescribing, which renders it necessary for physicians to learn doses over again in order to enable them to prescribe intelligently.

Well, to weigh liquids accurately is more tedious than to measure them. But a majority of the last National Pharmacopœial Convention was of the opinion that weighing gives more accurate results than measuring, and that the gain in exactness outweighs the additional trouble attending the weighing of liquids, and accordingly the Committee of Revision was instructed to frame the pharmacopœial working formulæ in parts by weight only.

Now, how much additional labor does this change really entail upon pharmacists?

The acids, fixed oils, chloroform, etc., were already in the old pharmacopœia (1870) directed to be weighed and not to be measured. To these liquids the new pharmacopœia (1880) has simply added now all other liquids except fluid extracts. But, as has been already stated, the pharmacopœia is nothing more nor less than a set of standards, and there can be no objection to measuring instead of weighing, provided always that the final result is

what the pharmacopœia prescribes. *The exactness insisted upon by the pharmacopœia, however, can be far more conveniently reached by careful weighing than by careful measuring.* It is undeniable that a pound of alcohol is a pound of alcohol whether hot or cold, whilst a pint of cold alcohol is a great deal more alcohol than a pint of hot alcohol. The old saw that "a pint is a pound" is beautifully simple, and might be applied in many cases arising in the grocery business, for instance, except, perhaps, in selling shot; but the application of this rule in pharmacy and chemistry has ceased because it is not true.

It is said that pharmacists and physicians generally prefer to refer to the strength of liquid preparations by measure rather than by weight. This is true. The writer is convinced that careful measuring is sufficiently accurate for all practical purposes, regardless of slight variations of temperature. I hold that, for the sake of convenience, each tincture should be so prepared that a convenient and easily remembered quantity *by measure* of the preparation shall represent a simple and easily remembered quantity of the drug. Liquid medicines are administered in measured doses, and never by weight. Even in countries where it has been the custom for centuries to prescribe and dispense exclusively by weight, and where there is accordingly some tangible reason for fixing the strength of liquid medicines according to simple gravimetric proportions, these liquid medicines continue to be given by nurses and taken by patients without the slightest regard for the greater accuracy of gravimetric methods. They (the nurses and the patients) still persist in using teaspoons, table-spoons, medicine-glasses, and the like, and I verily believe they would go so far as to decline weighing out each dose, even if the doctor should insist upon it and furnish the scales and weights himself. Hence, in our country, where the practical simplicity and sufficiency of fluid measures have actually been tested, the physicians will, in the writer's opinion, always continue to prescribe liquids

by measure. Now, as liquids are prescribed, dispensed and administered by measure, they ought also to be prepared according to volumetric standards of strength, so that the physician can readily tell how much of the active constituent a certain quantity by measure represents. Moreover, the strength of all liquid preparations should be fixed with some regard to their uses and doses, instead of as now with reference only to fixed uniform mathematical proportions. Our tinctures are now made to represent 5, 10, 15, 20, 25, 40 or 50 per cent. by weight of the drug; and, strange as it may seem, these proportions have no reference to the potency, so that we have a tincture of *veratrum viride* representing 50 per cent. of its weight of the drug, and a tincture of *matico* representing only 10 per cent. We are paying tribute to traditions and to the beauties of simple mathematical ratios at the expense of common-sense and good pharmacy. In this direction the new United States Pharmacopœia certainly does not suit the writer's ideas; but the old pharmacopœias did not do one whit better, nor has any pharmacopœia ever written done so. Probably the reason why a wholesome radical change in this respect has not been proposed is the fact that such a sweeping change could not be made without almost certain danger of serious harm resulting from the confusion which would be unavoidable in case the new preparations should be given the same names as the old. But a new nomenclature could be easily invented which would obviate all risk.

However, we are using mathematical tinctures now, and have been using nothing else within the memory of man. Even the solutions of inorganic chemicals (acids, alkalies, salts, etc.) are made to conform to our arithmetic rather than to chemical equivalence, notwithstanding the fact that most of them are used exclusively in making preparations, the constitutions of which are governed by fixed physical laws which apparently have no respect for simple numbers. The writer believes it to be entirely

feasible to combine comparatively simple and uniform proportions with a simple and convenient relation to uses and doses.

The fluid extracts are about the only liquid preparations in which the unvarying standard of strength is clearly the best that could have been adopted, as expressed in the new pharmacopœia.

Until rational principles govern the strength of tinctures, wines, solutions, etc., it matters little whether it be a fixed percentage by weight or by measure, and since the convention rejected fluid measures in favor of weights, in the interest of the greatest possible exactness, we are bound to respect its decision.

Doctors and druggists do not need to learn doses over again, for the preparations of the new pharmacopœia are no stronger than those of the old, as we have already seen, except that the superior processes of the new work necessarily yield more effective preparations regardless of proportions.

The third and last great objection made against the new pharmacopœia is, that an attempt is made through its medium to force the introduction of the metric system upon an unwilling constituency, which entails endless labor and vexation upon both physicians and pharmacists, and compels the druggists to incur a heavy outlay for a complete outfit of metric weights and measures.

This objection might be dismissed with the complete answer that it is not true; but we will try to show *why* it is not true. If these charges, made against the new pharmacopœia all through the West and Southwest, were true, the doctors and druggists might perhaps be justified in burning the book. On the strength of the unsupported as well as unanswered statements made, many have already firmly resolved that they will not use the new pharmacopœia, which some of them certainly have not yet seen. It is, therefore, well to review the whole question at length.

In this connection it is useless to discuss the merits of

the metric system over the old. That the metric system of weights and measures is now used in all civilized countries, and in most of them to the exclusion of any other system, and that it has been gaining ground very slowly and therefore all the more surely, and in spite of the most formidable opposition at all times (which will certainly continue so long as any yet remain who know the old and do not want to know the new), constitutes unanswerable proof that it will inevitably become the universal system of weights and measures in the future. The introduction of the metric system has required centuries; and the fact that, notwithstanding this slow progress, it is still gaining ground, establishes its intrinsic superiority better than volumes of argument. It is now in general use in France, Germany, Belgium, the Netherlands, the Scandinavian countries, Austria, Italy, Spain, Greece, Switzerland, Russia, British India, in several of the South American republics, and in Japan. It was legalized for all purposes in Great Britain in 1864, and in the United States in 1866.

In the United States it is used at this time by the United States Coast Survey, the Mints, the Navy, the Marine Hospital Service, and other branches of the public service. Within five years past it has spread very rapidly.

Medical and pharmaceutical societies have one after the other formally recognized the inevitable change which is taking place. A great number of the larger hospitals and asylums, public and private, have adopted the exclusive use of the metric system, and thousands of physicians are using it in their practice in Eastern cities. That it will ultimately spread all over this broad land is as certain as that a pint is not a pound; and why? Because the people of this country are a practical people, who will at all times adopt practical methods. Grams and fluigrams (or cubic centimeters) are not only as much superior to pounds, ounces, drachms, scruples and grains, and to pints, fluid-ounces, fluid-drachms and minims, as dollars and cents are superior to pounds, shillings and pence, but because

the actual weight of one cubic centimeter of any liquid in grams is at once the specific gravity of that liquid, and because to know the specific gravity of any given liquid is to know the weight of 1, 10, 100, or 1,000 cubic centimeters of it without any computation whatever.

But—the pharmacopœia does *not* introduce any system of weights and measures, new or old, and there is absolutely nothing in our new pharmacopœia which can be construed to compel the use of metric weights and measures.

A pharmacopœia is and can be only a set of standards of kind, quality, purity and strength of medicinal substances and preparations. It has, therefore, nothing whatever to do with the writing and dispensing of prescriptions beyond the fact, only, that when the physician does not expressly specify some other standard, it is clearly the duty of the pharmacist not to set up a standard of his own, but to dispense the preparations of *the* Pharmacopœia, if included in it.

The new pharmacopœia does not say that the metric system, or any other system, shall be used in writing and dispensing prescriptions. It does, however, mention incidentally (on p. xxxix) that “THE WEIGHTS AND MEASURES REFERRED TO BY PHYSICIANS IN PRESCRIBING, AND USED BY PHARMACISTS IN DISPENSING MEDICINES, ARE, IN THE UNITED STATES, EITHER THOSE OF THE APOTHECARIES’ OR TROY SYSTEM OF WEIGHTS AND THE WINE MEASURE, OR THOSE OF THE METRIC SYSTEM.” That is simply a correct statement of facts, and doctors may write and druggists dispense prescriptions in either grains, fluidounces, cubic-centimeters, pennyweights, or thimblefuls, for aught that the pharmacopœia contains.

The pharmacopœia refers to weights and measures only in its working formulæ, which are intended solely to fix the character and strength of the preparations so as to insure good quality and a uniform strength. The quantities laid down in the pharmacopœia are nothing more nor less

than *proportions*. They are to govern the pharmacist in preparing all official medicinal preparations; but when the pharmacopœia directs that 100 pills shall be made from certain specified quantities of the several ingredients, it would be absurd to conclude that the same pills may not be made in greater or less number than 100. For precisely similar reasons the pharmacopœia does not direct anyone to make 100 cubic centimeters of fluid extract in any case; it simply directs that each fluid extract shall be so made that 100 cubic centimeters of it shall contain all of the soluble matter which the particular menstruum prescribed can be made to extract from 100 grams of the drug in powder of the fineness stated in the formula. That is all that expressions of quantities can be held to mean in a pharmacopœia. If the working formula for fluid extracts had used the expression 15,432 grains instead of 100 grams, and 16,231 minims instead of 100 cubic centimeters, the formula would still be the same; and it would be so if the pharmacopœia had directed that 710 cubic centimeters be made from 25 avoirdupois ounces of drug. The product is exactly the same if the proportions are preserved, whether troy weights, avoirdupois weights, metric weights, or weights and measures together, or Chinese and troy and metric weights and measures, all at the same time, be used. In fact, the new pharmacopœia distinctly says (on pp. xxxviii and xxxix): "*The working formulæ* * * * * * *are so constructed that in their practical application any system of weights, or in certain cases measures, may be used. To carry out the official directions for the preparation of fluid extracts, however, the use of metric weights and measures WILL BE FOUND MOST CONVENIENT.*" Then follows a list of troy weights, U. S. fluid measures, metric weights, metric fluid measures, avoirdupois weights, and wine measures, *in the order here named*. On pp. 456 to 459 are tables of equivalents of weights and measures of all these systems. In the new pharmacopœial formulæ for pills, troches, etc., the quanti-

ties to be used are stated invariably in the manner illustrated as follows :

PILLS OF OPIUM.

	Grains.	Grammes.
Powdered opium, <i>one hundred grains</i>	- 100	6.50
Soap, in fine powder, <i>twenty-five grains</i>	- 25	1.62
	<hr/> 125	<hr/> 8.12

To make *one hundred pills* - 100.

Thus those who prefer the old system of weights and measures can use their familiar grains, to which preference is given in the formulæ of the pharmacopœia, and those who prefer metric weights can refer to the corresponding quantities stated in grams in the last column.

The only preparations in the new pharmacopœia, where metric units are actually exclusively mentioned in the working formulæ, are one single class—the fluid extracts. We will first show why this was done, and then that it does not follow, by any means, that pharmacists must use metric weights and measures in order to make these preparations.

In the formulæ for fluid extracts the metric units are referred to; not from any caprice, nor from any desire to force the use of the metric system upon an unwilling constituency; but because to make one cubic centimeter of fluid extract from one gram of drug, or twenty-one fluid ounces from twenty troy ounces, is more nearly the proper standard strength of fluid extracts than the old one by which twenty fluid ounces was made from twenty troy ounces. When a fluid extract is well made, a good drug in a proper state of division and a correct menstruum being used, the drug to be completely exhausted of its active principles, and when the process is carried out on a comparatively small scale within the requirements of practicing pharmacists, then it is in some cases impracticable to prepare a fluid extract of which twenty fluid ounces fully represent twenty troy ounces of the drug, without running a serious risk of

injuring the product by exposing a large proportion of the active matter to the heat which is unavoidably used in small operations to concentrate the last of the percolate.

A most careful and exhaustive series of experiments in the practical working of the several processes proposed for making fluid extracts proved that it was best, all things considered, to make twenty-one fluid ounces of fluid extract from the same quantity of drug which by the old pharmacopœial standard was required to yield twenty fluid ounces, this difference of 5 per cent. in the quantity of the yield being more than offset by the corresponding improvement in quality. Hence this was made the new standard; and the most simple expression of the relation of the drug to the fluid extract is precisely that given in the new pharmacopœia—one gram of the drug being represented by one cubic centimeter of the product. To any one familiar with the rate of exhaustion in percolation, this apparently small change in the quantity of the final product will be recognized as a very material difference indeed.

Thus the reference to grams and cubic centimeters in the new fluid extract formulæ simply amounts to a choice of expression, and the strength chosen is now such that the preparations themselves are as nearly perfect as careful study has so far enabled them to be made. The expression chosen is that 100 cubic centimeters of fluid extract shall be made from 100 grams of drug; the weight of 100 cubic centimeters of the finished product expresses its specific gravity to two decimals; and the specific gravity of the finished product, less the specific gravity of the menstruum, shows at once how much soluble matter by weight derived from the drug is contained in 100 cubic centimeters of the fluid extract.

Pharmacists, however, who are determined not to make use of metric terms and weights and measures, will find on p. xxx. of the new pharmacopœia that 100 avoirdupois ounces of drug will make 96 fluid ounces of fluid extract,

which is exactly the same thing as making 100 cubic centimeters from 100 grams.

In all other working formulæ the word "part" or "parts" may be understood to mean grains, or grams, or penny-weights at pleasure, without changing the result one iota.

Now, as the use of metric weights and measures, or of troy weights and apothecaries' fluid measures, or of avoirdupois weights and wine measures, or of any other weights and measures, is entirely optional, there need be no expense incurred on that score. Pharmacists already possess scales and weights of some kind. If these are accurate, they are sufficient; if not accurate enough for the processes of the new pharmacopœia, they are not accurate enough for any pharmaceutical purposes whatsoever. Moreover, tables of equivalents are given in both the pharmacopœia and in other books, which will enable any one to weigh out a pound with metric weights or a kilogram with avoirdupois weights at will without computations of any kind.

The real objections then to the new pharmacopœia are reduced to a little additional labor on the part of the pharmacist, exacted for the sake of greater accuracy.

We have shown, I think, conclusively that physicians who wish to uphold the standard of the Pharmacopœia of the United States, can with perfect ease and safety write their prescriptions in the way they are accustomed to, if they remember only that the extracts of aconite and conium should never be prescribed without specifying whether it is to be the preparation of the root or of the leaves of aconite, or that of the fruit or the leaves of conium.

Pharmacists who make their own preparations can use their avoirdupois weights and fluid measures if they prefer; but if they use the transposed formulæ given in the new United States Dispensatory, or in the "Companion to the U. S. Pharmacopœia" now in press, substituting measures for weights, they should bear in mind that those formulæ are secondary only, and that the pharmacopœia itself

is the only authorized standard upon which the others are based.

After thus having reviewed the reasons for ignoring the new pharmacopœia, let us inquire whether that work possesses any merits over the old, such as warrant a preference for the new preparations over those in accordance with the former standards. Strangely enough, little has been said on this point either for or against the new work.

The new pharmacopœia has raised the standard of purity of the chemicals all along the line; it gives warnings against inferior grades of drugs in many cases, which was not done in former pharmacopœias; it has very materially improved the working formulæ in numerous instances, so as to yield products which as a rule are superior in quality; and although it is not perfect, it is a far better pharmacopœia than any we have ever had.

To illustrate this point let us review the class of preparations known as fluid extracts.

No one who is at all familiar with fluid extracts and their preparation, and who possesses a requisite knowledge of drugs and a fair experience in pharmacy, can fail to recognize the striking improvements made in the new Pharmacopœia of the United States.

The menstruums prescribed in the old pharmacopœia for a majority of the fluid extracts contained in it, were so obviously and so greatly at variance with intelligent pharmacy that the severe criticisms passed upon them by the leading pharmacists of the country, for several years following the publication of that work, were never answered. Glycerin was introduced in a hit-or-miss sort of way into three-fourths of the fluid extracts. In several instances the finished product consisted of one-half glycerin. A dishonest manufacturer might introduce glycerin in that wholesale style for the purpose of deceiving purchasers as to the strength of these preparations, the singular notion being apparently very generally entertained that they must without exception be thick in order to be good.

But how the Pharmacopœia could have been made to adopt such a monomania, we are unable to comprehend. There is absolutely no good result derived from the use of glycerin in the fluid extract of either belladonna root, columbo, colchicum root, colchicum seed, conium fruit, digitalis, dulcamara, ergot, gentian, liquorice root, hydrastis, hyoscyamus, ipecacuanha, rhubarb, squill, senega, senna, spigelia, stillingia, or taraxacum. In fact, the use of glycerin in many cases defeats thorough extraction of the active principles of the drug.

Density does not furnish a safe indication by which to judge of the strength and quality of fluid extracts; but if it did, we might point to several fluid extracts which, when well made in strict accordance with the new pharmacopœia, and without glycerin, are heavier than the same fluid extracts made according to the old pharmacopœia, glycerin and all.

The alcoholic strength of the menstrua prescribed for fluid extracts in the old pharmacopœia was manifestly wrong in many instances, and necessary corrections in this direction alone have been made in over twenty of the official fluid extracts in the new pharmacopœia.

Further improvements in the preparation of fluid extracts have been introduced through the last revision, in the matter of solvents which aid the extraction of the active principles and preserve them from alteration.

With reference to the fineness of the powdered drug, the new pharmacopœia is far in advance of the old. Any one versed in vegetable histology, and who has studied the proximate principles of plants, their nature, and the manner in which they are formed and contained in the cells and vessels, can readily appreciate the insufficiency of the degree of mechanical division of the drugs as prescribed in several cases for the preparation of fluid extracts in the pharmacopœia of 1870. In other cases again, where there was no necessity for a very fine powder, and where a fine state of division inevitably offers serious mechanical

obstacles against the successful exhaustion of the drug, the old processes err in the opposite direction.

Last, but not least, there were no standards whatever in the old pharmacopœia for thirty-three of the fluid extracts generally used, which are now taken up in the new pharmacopœia, the number of official fluid extracts having been increased from forty-six to seventy-nine. That these thirty-three fluid extracts were formerly prepared in many different ways is indisputable; and as uniformity is of vital importance in medicine, the new pharmacopœia is again ahead of the old.

With reference to the fluid extracts it may in short be stated, that formulæ exist for only forty-six of these preparations outside of the new pharmacopœia, and these forty-six formulæ, contained in the pharmacopœia of 1870, are grossly unscientific, and furnish products so inferior to those of the new pharmacopœia that the most superficial examination will suffice to show the differences. It is, in fact, notorious that the processes of the old pharmacopœia had been abandoned by many skilled and conscientious pharmacists years before the new pharmacopœia was commenced.

If the formulæ for the fluid extracts of the pharmacopœia of 1870 had been properly constructed, those fluid extracts would be about 5 per cent. stronger than those of 1880; but owing to improved formulæ, the new fluid extracts are in point of fact strikingly superior to those of 1870, both in strength and in quality. The new tinctures are also greatly superior to the old, and improvements are equally evident in other preparations.

As to the new pharmacopœial nomenclature, it is decidedly more correct and definitive than any we have yet had, although capable of further improvement by specifying the parts of plants used, as, for instance, in aconite and conium, etc.

Such are the facts. The new Pharmacopœia of the United States is the only Pharmacopœia of the United

States, and will remain so until the next revision. In the meantime, all who have the best interests of medicine and pharmacy at heart will try to build up, instead of tearing down, the national standard, and will seek to find out its real defects, not to condemn the book but to improve it.

MILK FOR BABES.

BY E. M. NELSON, M. D.

[*Read before the St. Louis Medico-Chirurgical Society, April 17, 1883.*]

TO the citizens of a great city there are few questions of greater moment, of more vital importance, than those relating to the supply of pure milk.

That the value of milk as an article of diet and a nutrient beverage is better appreciated now than formerly among the people is, I think, unquestionable. While I cannot refer to any printed statement by any American observer which will warrant this statement, and have no accurate data with regard to the matter, I think my own observation justifies me in the opinion; and I do find a definite statement to that effect in the report of a discussion which took place before the "Farmers' Club," at Inns of Court Hotel, Holborn, London. Mr. J. K. Fowler said :

"The milk consumption in this country is increasing to an enormous extent. There is not one of us who goes along the streets of this great city, and who goes into any of the restaurants or cookshops, who does not see glasses of milk on the counters—milk that is sold in large quantities in places where, a few years ago, such a thing was never seen. At the railway-station bars, and at other places where they never sold anything but what are now termed alcoholic drinks, there is an immense quantity of milk consumed."

To the immense and yearly increasing number of infants who by reason of the physical disability or mental and moral disinclination of their mothers are deprived of their natural food, pure milk is not only important but absolutely essential.

It is not my aim in this paper to consider the various substitutes for mother's milk that have been suggested by various writers and practitioners and used with more or less success in the rearing of infants. I will only refer in passing to the fact that a number of articles have appeared in recent numbers of the *British Medical Journal* on the subject of artificial feeding of infants, from which the editor has prepared an interesting editorial entitled "Baby Starving" in the issue for March 3rd. He calls attention to the fact that there are differences of great importance in the composition of the various brands of condensed milk; that while some of them by the addition of cane sugar in the process of condensation make an article which is relatively poor in casein and fat elements and has an excessive proportion of sugar, other manufacturers have adopted a method of manufacture which secures a product which very closely approximates human milk in its chemical composition. Mr. Henry Ashby, of Manchester, in the same number refers specially to a brand of condensed milk—the "First Swiss Brand"—which does not contain any added cane sugar, and which makes an excellent milk when diluted.

There is also an article prepared in England on the suggestion of the celebrated obstetrician, Dr. W. S. Playfair, and which was devised by the eminent chemist, Dr. Frankland, for one of his own children who was ill. It is called "Artificial Human Milk," and Dr. Playfair says of it in the *British Medical Journal*, May 21, 1881:

"Its composition is absolutely identical with that of human milk; and under its use the risks and disadvantages of the bottle-feeding of infants are reduced to a minimum.
* * * I look upon it as immeasurably superior to asses' milk, than which it is much cheaper; and if this

valuable preparation were more generally known and used, much illness, in the case of children who cannot be brought up at the breast, would be avoided."

However, as this preparation will not keep sweet any longer than ordinary milk, viz., from twelve to twenty-four hours, it cannot come into general use through the country, and I have not heard of its preparation in any of the great cities except London. The subject to which I wish to ask your attention for a few minutes this evening is that of the milk supply of our own city of St. Louis.

What facilities have we as citizens for procuring pure milk for babes or pure milk for ourselves? What means have we of knowing whether or not the milk which we buy is pure and wholesome? What advice can we, as physicians, give to our patients with reference to their milk supply?

The milk supply of St. Louis is drawn from two general sources. There are within and in the immediate vicinity of the city not far from five hundred dairies, keeping from five or six to two hundred milch cows. Some of these dairies are kept by perfectly honorable, upright, reliable men, who give to their business intelligent study and careful, watchful attention. In these dairies the cows are well fed and well cared for in clean, thoroughly ventilated stables, and the milk is furnished to the consumers in good order and of good quality, without adulteration, unless at times a dishonest driver may dilute the milk to some extent in order to secure an extra amount for sale on his own account. On the other hand, some of these dairies are owned and kept by men who are neither honorable, upright, reliable nor intelligent, and whose only object is to secure the largest amount of what they can sell under the name of milk, without regard to the quality, and without any care at all as to the effect which it may produce upon the infants or others to whom it may be fed. Many of them, doubtless, are so grossly ignorant that they do not know that the milk which they sell may be the means of carry-

ing death instead of life to those who drink it. In such dairies the cows are kept in low, filthy stables, without any ventilation at all, and are fed little or nothing else than hot distillery swill. They are tied up in stalls reeking with filth, hot and close, without any opportunity for securing fresh air or any exercise, until they become feverish and diseased, and even then their milk is supplied to the consumer as pure milk. Men who supply milk from such cows, so fed and so kept, will generally dilute the milk after it is taken from the cow by the addition of water, with perhaps a little salt to raise the specific gravity, and a little caramel to enrich the color. Between these two extremes there are, of course, all shades and degrees of difference.

In regard to the feeding of the cows, there is almost as much variation between different dairies as there is in regard to cleanliness. Nearly all the city dairies make use of the products of the breweries and distilleries as a considerable part of the feed of their cows. So far as the malted grain is concerned, perhaps nothing can be said in objection to its use as a part of the food. It is recommended by the best writers as a valuable and economical constituent of the food of milch cows. The same cannot be said of the hot distillery swill. The effect of this food has been found by the best and most careful observers to be prejudicial to the health of cows and to produce a milk that is lacking in nutritive quality as well as being specially liable to speedy change and fermentation. Mr. Lake, who was for many years the largest feeder of distillery swill in the city, asserted that cows fed on this article invariably become diseased within a period of six months, and the lungs show constantly the evidences of tubercular infiltration. Mr. Cabanne states that when he formerly fed swill in his own dairy he butchered over one hundred and fifty cows, and never found one in which there was not tuberculous disease of the lungs.

The other principal source of supply of milk is that

which is brought to the city by railroad from stations at various distances from the city, some as far away as fifty miles, and is distributed to the consumers through the agency of the three milk companies known as the Illinois Milk Company, Bowman & Co., and the St. Louis Dairy Company. The milk companies make contracts with farmers to take all the milk which they can supply during a term of six months or a year. The farmers supply their own cans (generally eight-gallon cans). These are delivered at the railroad stations by the farmers, are received at the depot in St. Louis by the wagons of the milk companies, and taken to the companies' storerooms, where, more or less regularly, samples are taken by the companies' agents for examination, in order to protect themselves against fraudulent addition of water or subtraction of cream by the farmer.

In order to protect themselves and their patrons from being defrauded by dishonest drivers, the different companies have adopted different systems of checks and inspections. The Illinois Milk Company test the milk as it is received from the farms, and then when the drivers return from their delivery route they test samples of the milk remaining in the cans, and a comparison of the tests will give a clue to any addition of water by the driver. They also, from time to time, secure samples of milk as furnished to the families, by having certain families take an extra quantity of milk, which is immediately placed in a bottle specially provided for the purpose, sealed closely, and returned to the office of the company for examination. This company sells two grades of milk: That which they call No. 1 milk they supply to their retail trade, to family customers, as pure unskimmed milk. Their No. 2 milk has the cream of eight to twelve hours standing removed from it, and is sold with that understanding to restaurants and stores which retail to customers. In many cases, probably in most cases, this milk is further adulterated by addition of water by the storekeepers before it reaches the

consumer. The test used by the Illinois Milk Company is that known as the cream test, and consists in setting a measured quantity of milk in a high graduated glass, and determining the per centage of cream raised in a certain definite period of time, as twelve or twenty-four hours.

The Bowman Company tests the milk as it comes from the farmers as a check upon them, and also the milk returned by the driver after completing delivery, and also has arrangements for taking samples occasionally from wagons on their routes and testing them. They keep one man employed all the time in following up the drivers, one day going with one, the next with another, and so on. This company furnishes two grades of milk and also cream. They aim to supply only the best milk, that which they name No. 1 milk to their family trade, and sell the skimmed milk as No. 2 milk to the restaurants and stores.

Both these companies send out the two grades of milk by the same wagons, and are, therefore, to some extent dependent upon the honesty of their drivers to supply only the first grade of milk to their family trade and not to mix the two grades of milk.

The St. Louis Dairy Company has been organized less than a year, and it is the purpose of the company to carry out just as fully as the different circumstances and different surroundings will admit, the plan which has been so successful and has become so celebrated as the Aylesbury method, in London, Eng.

By this method as carried out by the Aylesbury Company, of London, the farms on which the milk is produced are inspected before contracts are entered into for the taking of the milk; and then the milk is tested as it comes to the company's store-rooms, and as it is put into the cans; it is then sealed so that the driver has no access to it only drawing it from the can by a faucet, and the residue is tested on return to the office.

It has not been found practicable here as yet to establish any systematic and thorough inspections of the farms;

but the inspection and testing of the milk is carried on very systematically and thoroughly. A sample is taken from each can or from at least one can of each producer as it is brought from the railroad. The milk is tested by a quick process for the extraction of the fat by means of ether. The company have employed a thoroughly educated, practical chemist, a graduate of the University of Goettingen, to give his whole time to their business. A careful record is kept of the analyses of the milk as it is received by the company. Then the chemist or an assistant is provided with a horse and wagon in which he goes around to different parts of the city, intercepts the different drivers on their routes and takes samples of their milk and cream, labeling each specimen and designating the hour at which the specimen was taken. These specimens are carried to the laboratory and analyzed. Finally the residue of milk and cream in the can when the driver returns after completing his route are tested, and the results of these analyses are recorded together with those of the original tests, and any discrepancy here will at once detect attempts on the part of the driver to tamper with the milk. This company sends only one grade of milk on their wagons. The wagons which supply families carry only the pure unskimmed milk or cream. The wagons which supply the groceries and restaurants with skimmed milk, carry only that grade of milk.

It is the intention of this company to have their laboratory fully equipped with all apparatus necessary for qualitative and quantitative analysis of organic substances, and so be prepared not only to analyze their own milk, but any other samples that may be brought by dealers or customers, and to make other analyses as may be demanded by circumstances. They have also just established at Ferguson Station, on the Wabash R. R., a creamery which will receive the milk from a considerable extent of country on this side of the river, and serve as a guard against sudden variations in their supplies from other

sources and avoid the danger of being left in the lurch by an unexpected demand from the farmers on the other side of the river for an increase in the price of their milk. It is claimed by the officers of this company that it is not expected that the creamery will be profitable in any other way than by enabling them to have an additional supply of pure milk from which they can draw in case of special demand or in case of failure of any of the dairies upon which they regularly depend. It is said that butter-making in this climate cannot be carried on with any expectation of profit. Whatever be the result in this respect the value to a large dairy company of having such an establishment in connection with their milk business is apparent at once.

Several years ago an attempt was made by the St. Louis Board of Health to suppress the swill-milk trade of St. Louis, and remove the dairies outside of the city.

A milk inspector and a dairy inspector were appointed, both being gentlemen of the highest ability and of unimpeachable integrity; and a vigorous campaign was commenced. Samples of milk furnished by the various dairymen were examined; the condition of the dairies was investigated as to cleanliness of premises, character of food used and health of the cows. Suits were brought against some two hundred dairymen on various grounds; but it was found that in the then existing state of the laws, it was impossible to secure conviction of any of these dairymen. An unsuccessful effort was made to obtain more efficient legislation by the state. In order to fight the Board of Health primarily, and, since the discontinuance of active measures by the Board, to promote in a more general way the interests of the city dairies, the dairymen of the city have organized a Dairymen's Association by which they propose to regulate the business themselves and secure the interests of the public and of the dairymen at the same time. They assess each member of the association a certain sum annually; they employ an

inspector whose duty it is to go about constantly among the dairies and watch the manner in which the stables are kept, and also to test the milk ; and the plan is that when any member of the association is found to be selling impure, diluted or adulterated milk, he shall be dealt with to the extent of the law and, unless he discontinue the practice, be expelled from the association. The theory of this association is good, and I am informed at the office of the Board of Health that there is much less difficulty now than when the attempt was made to regulate the milk business by the city officials. One incident which I will relate, however, would suggest that this sense of increased security on the part of the city officials is not altogether unlike that of the ostrich which, having hidden its head, deludes itself with the idea that its whole body is protected. The incident referred to illustrates the reliability of the inspection as carried on by the officer of the Dairymen's Association. He went to one of the larger dealers not a great while ago and said to him: "Mr.— I am going to test the milk on your wagon at — street to-morrow. You had better tell your driver." Of course testing of the milk when the driver has been forewarned that a test is to be made, would be no test at all so far as protection either of the public or of other dairymen is concerned.

I am informed by the attorney of the Dairymen's Association that a plan is already well advanced for the formation of a new association, which will include only the better class of dairymen, and that vigorous efforts will be made to secure suitable legislation upon the subject, and that the association will heartily co-operate with the Board of Health in an attempt to secure the efficient regulation of dairies rather than their expulsion from the city limits.

There is no public record kept as to the character of the dairies and the quality of the milk furnished by the different dairies in the city. The attorney or officers of the Dairymen's Association will give to any physician or other person applying, information as obtained from their in-

spector, the accuracy of which, judging from the incident already referred to, would be variable according to the personal interest of the inspector and the probability of his report being followed up by personal investigation on the part of the person seeking information, and the value of which, this being the case, must be very low indeed.

If the plans of the new association are efficiently carried out, and inspection is conducted by reliable and able men, it will then be possible for us, as physicians, to learn accurately the character of the milk supplied, and to advise our patients intelligently as to sources of supply.

In the meantime our only resource is to investigate the dairies on our own responsibility and make our own tests of milk, or else to advise our patients who need pure milk for babes, to procure it from such sources as I have already specified in this paper, where the milk comes from the country beyond the range where distillery swill is an economical food, and through agencies whose reliability is unquestionable, and whose tests are a substantial guarantee of purity and excellence.

Few, even of the more intelligent citizens fully realize the importance of this matter of pure milk, and it is a matter of wonder, to any one who has opportunity to know the facts, to see how many of our well-to-do families are influenced in their choice of a milkman by the fact that this one gives two or three more pints for a dollar than does some other. If they only knew it, it would be more economical to buy pure milk at the full price and add water to increase the quantity, for then they could know pretty well the quality and quantity of the dilution.

Some additional facts gathered in the course of my inquiries may be of some interest to the members of the society.

The farmers who ship milk to St. Louis receive a higher price per gallon than is paid in any of the other large cities. In New York City, the prevailing price in summer

is twelve cents per gallon for the six summer months, fourteen and two-thirds cents per gallon for the six winter months. In St. Louis, the price paid is twelve and one-half cents in summer, and sixteen cents in winter.

During this last winter when the dairy companies have been paying farmers sixteen cents for milk, the Lindell, Southern, Laclede, Planters' and other prominent hotels have procured their milk for prices ranging from twelve and one-half to fifteen cents per gallon. This will suggest some inferences as to the quality of the milk placed on the tables of these houses.

Another fact worth noting is that the milk supplied to the groceries and milk depots throughout the city is almost universally what is known as No. 2 milk, *i. e.*, milk from which the cream rising in from twelve to twenty-four hours has been removed.

PRIMARY LATERAL SPINAL SCLEROSIS.

A CLINICAL LECTURE BY ALEXANDER B. SHAW, M. D.

Reported Phonographically by BRANSFORD LEWIS, Student, Mo. Med. College.

GENTLEMEN—The patient before you has been an inmate of this hospital since August 12, 1882. The hospital record shows the following history: "Emile Spengler, age 40, single, laborer, has been paralyzed in his lower extremities since January, 1880. Sensation unimpaired; upper extremities not affected; sometimes has pain in his knees; has been very much exposed to cold and wet; general health reasonably good.

"October 31, 1882.—No improvement; paralysis increasing. December 31.—Condition unchanged; still has pains in his knees. Feb'y 27, 1883.—Less pain in his knees. March 27, 1883.—General health good; considerable pain in his knees; attempts at voluntary motion produce vio-

lent trembling of his legs; never had syphilis; never was sick prior to present illness; never had any trouble with his urinary apparatus; bowels tolerably regular."

Now, gentlemen, if you will observe the gait and general carriage of this patient you will perceive that his body is thrown well forward; that his steps are very short and evidently accomplished with considerable effort, in consequence of a degree of stiffness of his legs almost amounting to rigidity, which is due to a spastic contraction of the muscles of his lower extremities; that his feet seem to be too heavy, and are raised from the floor by elevating first one side of his pelvis and then the other; that as the foot is brought forward it scrapes the floor, as is the case in hemiplegia. Furthermore, in consequence of undue contraction of the adductor muscles, you see there is a disposition to knock the knees together as he walks.

In many cases of lateral spinal sclerosis the contraction of the adductors is so great that the patient places one foot almost directly in front of the other in walking, and there is considerable danger of his feet interlocking and of his being violently thrown.

I wish you to particularly note the general rhythmic tremor that is developed in the legs whenever voluntary motion is attempted. Now the gait of this patient is highly characteristic of lateral spinal sclerosis.

He first noticed stiffness of his legs a little more than three years ago. Never was paralyzed, and is not so now, for, as you see, I am absolutely unable to produce flexion or extension of his leg when he voluntarily renders the knee joint rigid. He says that during the last year and a half he has suffered considerably from pain in his right knee, but that the pain is not continuous. He also states that he never had any severe illness; never had a fit or convulsion; never became unconscious; never had rheumatism; and although he says he has had syphilis, I confess I very seriously doubt the accuracy of this statement, for he denies ever having had a sore on his penis, a bubo, sore

throat, eruptions on his body, nocturnal pains in his lower limbs, or that his hair ever came out to any considerable degree, and I do not discover any enlargement of his post-cervical or inguinal glands; neither does there seem to be any undue tenderness of the periosteum overlying superficial bones as the sternum and tibia.

Further, he states that at all times he has had perfect control over his bladder and bowels, and that he has not experienced any numbness, anesthesia, tingling, or any other sensory disturbances in the affected parts, and we, at a glance, see there is no emaciation, or atrophy of either limb.

Now, with the light thrown upon this case by the history as developed, I do not hesitate to advance a step further in naming the affection with which this patient is afflicted, and instead of simply saying it is lateral spinal sclerosis, we are ready to add as a prefix the word primary, and pronounce it that extremely rare and interesting disease known as primary lateral spinal sclerosis. By the term primary lateral spinal sclerosis is meant a diseased (sclerosed) condition of the *crossed pyramidal tract*, that particular portion of the cord which conveys probably about ninety-five per cent. of the motor vibrations or impulses from the cortical portion of the brain to the body and extremities. It is essentially a chronic affection, probably a subacute inflammatory one in the beginning, and is developed slowly, creeping on one almost unawares. While it impairs the vitality of its victim, and probably predisposes him to pneumonia, pleurisy, and cystitis, it is not in itself directly fatal. In the initial stage the patient notices a stiffness of the affected part or parts; this gradually increases, and after a time he perceives that the stiffened part is not as strong as formerly. Still later the reflexes, both superficial and deep, but particularly the deep, are increased, probably because of a degeneration of those fibers which convey the inhibitory motor impulse from the crossed pyramidal tracts to the multipolar cells of the an-

terior cornua, which are the most prominent constituents of the reflex centers of the spinal cord.

This increased irritability of the reflex centers is the cause of great annoyance to the patient, for frequently the slightest peripheral irritation is immediately followed by violent rhythmical trembling of the affected part. I will now request the patient to extend one of his legs, and you observe the violent agitation of his whole limb, which is caused by his effort at voluntary movement of the part. You have frequently heard me speak of the *patellar tendon reflex*. In lateral spinal sclerosis it is greatly exaggerated, as you perceive it is in this case when I gently tap the tendon with this plate. In this disease we also frequently have that variety of deep reflex movement known as ankle clonus exceedingly well marked. Ankle clonus is induced in this manner: the patient being seated I gently extend his leg almost to a right angle with his body, and grasp the foot about the instep quite firmly. After holding it thus for a few seconds I suddenly flex the foot upon the leg and then disengage my hand, and, as you observe, I have produced rhythmic movement of the foot, due to alternate contraction and relaxation of the gastrocnemius, soleus and other muscles forming the calf of the leg.

This exaggerated reflex movement, ankle clonus, is highly characteristic of lateral spinal sclerosis, though it is not pathognomonic, for it is frequently present in hysterical spastic paraplegia. As time advances the increased reflex irritability, stiffness and paresis gradually become more and more marked. The spastic contraction of the adductor muscles of the thighs renders walking particularly hazardous and difficult, for the contraction of these muscles approximates the legs to such a degree that with every step the knees are rubbed together, and the foot, as it is brought forward, is planted in front of its fellow.

After the lapse of years the sufferer is bedridden, and the legs become rigidly extended, with the feet in the posi-

tion of equino-varus. After a few years more the rigidity disappears, the extremities emaciate, and the reflex irritability is very considerably diminished or absent. This relaxation, atrophy and diminished or absent reflex irritability, is due to an extension of the disease from the lateral columns (possibly along the fibers conducting motor impulses from the crossed pyramidal tract to the multipolar cells in the anterior cornua) to the anterior cornua of the gray matter, inducing a sclerosis of the anterior cornua and destruction of the multipolar cells, which are, as I said before, the keystone, in the arch of reflex irritability, and the structures that preside over the nutrition of the muscular system, or, if you please, trophic centers.

Now the condition of our patient will resemble that of a case of progressive muscular atrophy. In fact, progressive muscular atrophy of the previously affected part is super-added to the original affection, because of the destruction of the multipolar cells. But the picture is not yet complete, for *pari passu* with the extension of the sclerosis and the involvement of the anterior cornua, there will probably be an involvement also of the posterior cornua of gray matter, when, because in this part of the gray matter are located those trophic cells which preside over the nutrition of the skin, there will be a development of bed sores with all their accompanying ills. The lightning pains so common in locomotor ataxia are also frequently experienced at this stage of the affection.

Now likewise chronic cystitis will probably occur, and may possibly terminate the life of the sufferer; or, as his vitality has been reduced so far below par, his sufferings may be ended by some intercurrent affection, as bronchitis, pneumonia, pleurisy, etc. In many respects primary and secondary lateral spinal sclerosis resemble each other very closely, for instance, in each the same peculiar, I may say characteristic, gait is present; and in both forms of the disease there is gradually increasing rigidity, increased patellar tendon reflex, and the presence of the ankle clonus.

But, gentlemen, there are many and well marked points of difference ; for in the former there are no sensory disturbances, while in the latter there is more or less, possibly complete anesthesia ; or if the posterior roots be compressed there will be shooting pains. Again, in the former the rectum and bladder are normal, while in the latter they are frequently more or less affected. And still further, in the primary form rigidity of the muscles either precedes paresis or is from the beginning a more marked feature than the paresis, if they are developed simultaneously. While in the secondary form, paresis is the first symptom, the rigidity occurring later. Again, the evolution of the primary form is quite slow, while the secondary form develops more rapidly.

Now, gentlemen, a few, a very few, words in regard to treatment. Above all, look well to the nutrition and general hygienic condition of the patient. Persist in the use of the primary galvanic current. We are recommended to place the anode on the upper, and the cathode on the lower portion of the spine ; but do not apply either the galvanic or faradic currents to the muscles, for by doing so we would increase their tonicity, increase the readiness and strength of their response to the motor impulse transmitted from the reflex centers, and really do harm by increasing the spasms, rigidity and sufferings of our patient. If there is a syphilitic history, give iodide of potassium liberally. *En passant*, permit me to suggest that this drug should always be given in a large quantity of liquid, and not in the form of a concentrated solution.

Many authorities recommend the administration of the iodides, whether there is a history of syphilis or not. The nitrate of silver is highly lauded by some as efficacious in the treatment of all forms of sclerosis of the spinal cord.

It just occurs to me, gentlemen, that I have not said anything about the etiology of primary lateral sclerosis. Exposure during intensely cold weather, working in water, getting wet during very cold weather, and congenital

defect in the development of the motor tract, have been mentioned as probable causes, but really nothing definite, so far as I am aware, is known to-day as to the causation of this disease. However, as you remember, this patient stated that by occupation he is, or was, a laborer; that for many years he has worked during the winter weather in a slaughter house, in a very cold room; that he washed out hogs week after week, using very cold water most of the time, necessarily getting quite wet every day; and that during warm weather his occupation was that of a hod carrier. I cannot but think that in this man's occupation is to be found the cause of his trouble, as much as we discover the cause of lead-poisoning in the occupation of the painter. For the standing for hours at a time in a very cold room with the feet and hands thoroughly chilled—in fact almost frozen—would be very conducive primarily of spinal congestion, and secondarily of a subacute inflammatory condition that would be very likely to terminate in sclerosis. And in the occupation of hod carrier we certainly have an undue activity called for on the part of the motor tract. I can scarcely imagine a business that would be more likely to produce exhaustion of the motor centers than this one. Imagine a man ascending a ladder to the third story of a building, the ladder almost perpendicular, and swaying from side to side at every step. You readily perceive that extreme activity of the co-ordinating and motor centers would be required.

In one ascending or descending a ladder many times each hour in the performance of his daily avocation, the act becomes largely an automatic one, and this in itself calls for even more activity of the spinal cord than would be the case if the act were not so largely automatic. Furthermore, the hod carrier ascends his ladder with a considerable weight on one shoulder. This circumstance requires a still greater expenditure of motor force, consequently greater activity of the motor tract than there would be if a load was not carried. And lastly, this

weight of brick or mortar must be raised quite a distance every step that is made, for the rungs of a ladder are usually from twelve to fourteen inches apart. But I see my hour has expired, and I will close by saying that the prognosis is unfavorable in both forms of lateral spinal sclerosis.

PURULENT INFANTILE VAGINITIS.

BY R. B. MAURY, M. D., MEMPHIS, TENN.

PURULENT inflammation of the vagina in childhood is a disease of not uncommon occurrence.

From time to time I have been consulted by mothers, for the relief of a discharge of pus or muco-pus from the vagina in their little children, and the only advice I have, until lately, been able to give them, has been the use of the syringe with medicated washes. This has been of little value as a therapeutic measure, for two reasons: first, it is next to impossible for any mother to use, because no child will submit to it; second, it would seldom cure or even relieve the disease, if applied in the most thorough manner. I think it very probable that until this last winter I have never cured a single case.

Purulent vaginitis in childhood is a disease of great importance. Eight years ago, a lady consulted me for the relief of this complaint in her daughter, then seven years old. It was associated with, and perhaps dependent upon, ascarides in the rectum. The worms were destroyed by the usual treatment, but the mother could do nothing for the vaginal disease, because the child would not permit her. Now I am informed that, after an interval of eight years, vaginitis still remains, and that there is a purulent discharge which causes much irritation upon the neighboring cutaneous surfaces.

One would suppose that by this time permanent changes have occurred in the tissues of the vaginal walls, and that

the inflammation has invaded the cavity of the cervix, and involved the glandular structures therein. This girl, now fifteen years old, persists in declaring that nothing shall be done for her relief.

The text-books, with few exceptions, make no mention of this disease. When alluded to at all, it is spoken of as vulvitis, a term which fails entirely to convey any accurate idea of its real nature.

Two of the best and most recent works on the diseases of Children (Smith, and Meigs and Pepper) have nothing to say on this subject.

Dr. Edward Henoeh, in his "Lectures on Diseases of Children" (Wood's Library), says: "Vulvitis is undoubtedly the most frequent affection of the genitals in little girls."

"On examination, there is discovered a purulent fluid flowing from the genitals, often dried into thin crusts on the inner surface of the labia and thighs, and producing stiff and greenish yellow spots on the under clothing." "The mucous membrane of the introitus vaginæ is reddened to a variable degree, and the labia are not unfrequently somewhat swollen and sensitive."

The causes assigned for the disease are rape, uncleanness, frequent manipulations, gonorrhea, ascarides in the rectum, cold. The treatment proposed is rest and astringent injections.

In November last, I saw three cases of purulent vaginitis in a family of most estimable character, remarkable for the extreme neatness and cleanliness of their persons and their dwelling.

The children were aged respectively three months, three years, and five years. The two oldest slept together and were bathed together. The baby of three months was attended to entirely apart from the other two. After most careful investigation, no explanation could be given of the cause of the disease. The children were remarkably healthy and vigorous. No similar or analogous dis-

ease existed in either parent. The children presented no peculiarity, save a strong tendency to the development of eczematous eruptions. Several years ago the father had psoriasis of the scalp.

My first advice was the usual one—attention to diet, regulation of the bowels, and astringent injections. The result was the usual one—no improvement whatever.

Finding the mother was willing to do anything reasonable, I adopted the following plan: The two oldest children were etherized; the vagina was thoroughly washed out by a gentle stream of water, its deepest recesses were cleansed by means of absorbent cotton, and it was then filled with iodoform. On wiping out the upper portion of the vagina, the cotton in both cases was found to be stained with blood, indicating most probably exfoliation of epithelium from the cervix uteri. After drying and cleansing the canal as well as possible, the vagina was opened without injuring the hymen, by means of the large blade of Skene's urethral speculum, the little patient being in Sim's position. Then, making use of the insufflator for spraying dry powders, the vagina was nearly filled with iodoform.

At the expiration of five days the children returned, much improved. They were again etherized and treated in the same way. At the expiration of a week they were nearly well, when the treatment was repeated for the third time, and the cure was complete.

In one of these children I tried a suppository of iodoform, which happened to be at hand, for use in the cervix uteri; in the other, dry cotton saturated with iodoform was carried up to the cervix by means of the flat probe or applicator, and left in situ, but neither of these plans produced perceptible improvement.

The treatment which I have given in detail produced a speedy and permanent cure. The baby's case was postponed because of my reluctance to etherize it. It still has the disease.

CASES FROM PRACTICE.

DERMATOLOGICAL CLINIC, MISSOURI MEDICAL COLLEGE.

Service of DR. W. A. HARDAWAY.

TINEA VERSICOLOR IN A CHILD.

E. J., aged about 11 years. This child had been, and was at the time, under treatment for some spinal disease, and had worn a Sayre's jacket of plaster. An examination of the chest revealed a typical *tinea versicolor* in the usual situations. Ordered the parts to be washed nightly with soft soap, and a lotion of sodium hyposulphite to be mopped on several times a day.

Remarks: *Tinea versicolor* is an exceedingly common disease of the skin, but it is an affection which is considered by all authorities as peculiar to adult life. The only interest attaching to this case is the youth of the subject. Dr. Walter G. Smith, of Dublin, has given the notes (*Archives of Dermatology*, Jan., 1882) of a similar attack in a girl of 12 years, which, together with the case now recorded, are perhaps the only exceptions to the general rule that have been published. It was stated that the father of this child had the same malady, but as he failed to come to the clinic this assertion was not verified.

EXTENSIVE DEVELOPMENT OF TINEA CIRCINATA.

G. B., aged 12, schoolboy. This patient was a well-nourished, healthy boy, in whom the eruption came out quite acutely a month before he was seen, in the form of small, red pimples on the breast, which afterwards ran together into large patches. When the patient was inspected at the clinic, it was noted that the affected surface had a mottled dark-brown appearance, in-

terspersed, here and there, with somewhat prominent, red papules. Some of the brown areas have an elevated papular margin. A few of the patches are as large as the palm of the hand. The whole eruption is made up of different sized patches, presenting wavy lines of demarcation, circinate and serpiginous. The lesions occupy the whole of the front and sides of the trunk, from the clavicles to the groins, and also extend well down on the thighs. On the back the eruption is as extensive, but is somewhat more broken—not so continuous a sheet. The patches are only slightly scaly, except two or three which are covered with a fine, white desquamation. The scaling is more abundant on the peripheral, slightly elevated margins. The color of the patches is dark-brown, and not fawn-colored as in *tinea versicolor*. Upon microscopic examination of the scales the *trichophyton* was readily demonstrated. The treatment was by friction with green soap, and the free application of the hyposulphite of sodium lotion. At the end of one month the disease had disappeared, but the skin remained quite markedly pigmented for a season.

Remarks: The case just described corresponds quite closely with the so-called *tinea tonsurans* (?) *maculosa* of the Germans, but only differs from ordinary ringworm of non-hairy parts by its extensive development and some accidental features. It is certainly true, however, that in this country such wide distribution of *tinea circinata* is unusual.

SYMPTOMATIC PAPILLOMA CUTIS.

M. McC., aged 47 years. Upon the right leg just above the ankle are to be seen two typical papillomatous growths, about one-sixteenth of an inch in height, and of the circumference of a silver quarter dollar. The hypertrophied papillæ are plainly to be seen, and a probe could be readily passed down between them. A rather dry crust covers the lesions. At present there is very little of the usual puriform discharge. The patient has varicose veins. The spots commenced as small eczematous patches; they still itch violently. Electrolysis and Martin's bandage recommended.

Remarks: This case illustrates several points in a very interesting way. 1. Eczema not uncommonly commences in small button-like infiltrations, which may remain for an indefi-

nite period. 2. An eczematous lesion, especially of this form and upon the lower extremities, may take on papillary hypertrophy, thereby masking the character of the original affection. 3. Dr. Hardaway has elsewhere shown (*Archives Dermatology*, October, 1880) that papillary fungoid growths may follow upon various primary conditions, *e. g.*, syphilis, lupus, eczema, etc. These are in no sense substantive diseases, but are merely symptomatic and differ entirely from the true papilloma described in the same article.

PSORIASIS RUPIOIDES.

Mrs. G., aged 25 years. Two months before applying to the dispensary the disease commenced rather suddenly with the ordinary papules of psoriasis, appearing first upon the hands and face, and then extending to the trunk, limbs and head. Upon inspection at first visit the eruption is seen to occupy pretty much the whole surface. The average size of the lesions is between a ten cent piece and a quarter dollar. There are many characteristic small papules, and some as large as silver dollars. On the medium sized plaques the scales are of a dirty, brownish color and heaped up exactly as in rupia. The scales are entirely lacking in the glistening, mother of pearl color as seen in psoriasis vulgaris. Around each patch is plainly to be seen the usual bright red border.

On removing the crusts a red, non-discharging, punctiform bleeding surface is disclosed, without evidence of ulceration or pus formation. Ordered an ointment of chrysophanic acid for the body, and an ammoniated mercury salve for the face.

Remarks: At first glance the eruption looked exactly like a syphilitic rupia, but aside from the discovery of some of the ordinary papules of psoriasis, it was shown that the heaped up scales were epidermic, that the exposed surface was not bathed in pus, nor ulcerated, and that the margins of the rupia-like patches presented the characteristic red margin. It was discovered that the patient's mother, an old woman of 65 years, was the subject of a marked eruption of psoriasis vulgaris.

ACEPHALUS WITH SPINA BIFIDA.

BY F. L. MARCOTTE, M. D., CONCORDIA, KAS.

Mrs. H., primipara, æt. 22, seven months in pregnancy, gave birth to a female fetus about a year ago. Labor lasted about three hours. Her pains were short and regular. Mrs. H. could not account for this premature labor. Had received no blows or injuries, and had had no scare. The afterbirth, which was unusually large, was expelled without difficulty after one hour. It presented two round spots the size of a silver dollar, which would not impart the ordinary granular feeling to touch. The lady recovered rapidly from her labor.



The fetus weighs two and one-half pounds. The body is well developed and presents nothing abnormal, with the exception of an edematous condition of right labium majus. The skull is of a somewhat quadrangular form. The occipital segment is rudimentary, small, concave, and not articulated with parietal plates. The parietals are greatly malformed; have about half of normal breadth; are flat and horizontal, with supra-orbital ridges. They fall on each shoulder in the shape of an arch

the base of which lies about one-half inch posterior to the coracoid processes of scapulæ. They unite perfectly with frontal bone. The coronal suture is very deep.

The temporal bones are well represented. The arches of the vertebræ are entirely absent. A thin shining membrane covers the spinal cord down to about the region of the first lumbar vertebra. The transverse processes are sharp and distinctly felt on each side.

The face is flat, but all of its bones are well developed. The eyes are very prominent, the ears round and very small.

The fetus was still-born. It presents at first sight a striking resemblance to a frog.

F. L. MARCOTTE, M. D.

INDEX MEDICUS.—This most invaluable journal has entered upon its fifth year, and the publisher appeals to the profession to support the journal with greater liberality. It should be in every public library which is at all patronized by physicians. We would urge upon our readers to secure that a copy of the *Index Medicus* shall be placed in the public libraries of their towns, and that the medical societies to which they belong should subscribe for a copy. It is an aid that cannot be over-estimated to every physician who takes or has access to a number of medical journals, and it is the only means by which one can keep himself *au courant* with the work that is being done by the various medical journals. To a writer or worker who wishes to keep informed as to what is done and written in different parts of the country in any special department of our profession it is a means of labor saving and time saving that only such an one can appreciate. Of the 600 subscribers to the journal the largest number is found in New York state, the next in Massachusetts, and the next in Pennsylvania. Our Western and Southern states are not largely represented. Let us do our part to sustain this journal, which is doing so much to assist the best professional work. Send on a subscription individually or from your society to F. Leypoldt, 31 Park Row, New York City, N. Y. The price is six dollars per year.

EDITORIAL.

DISINFECTION IN TYPHOID FEVER.

Having called attention in our last number to the discussion upon enteric fever which attracted so much attention in the French Academy, and in which so many of the most prominent French Physicians took such an active interest, it may not be inappropriate to notice some valuable papers on kindred topics which have recently appeared in some of our American medical journals.

In the last number of the *American Journal of the Medical Sciences* there is an able and interesting paper by Dr. James C. Wilson "On the Importance of the Thorough Disinfection of the Stools in Enteric Fever," in which he expresses the opinion that not only is it "possible to greatly restrict enteric fever in its prevalence, but that, as has been suggested by Flint, it is also possible in the course of time to get rid of it altogether."

He calls attention to the following facts concerning the germ that gives rise to enteric fever, as shown in the natural history of the disease, as having a bearing upon the immediate topic of his paper:

1. It is invariably derived from a previous case of enteric fever.
2. It is eliminated with the fecal discharges.
3. It is not capable of producing enteric fever at once in susceptible persons exposed to it, but must undergo changes outside the body before it acquires this power.
4. It retains its activity in favorable situations for a lengthened period, the requirements to this end being decomposing animal matter, especially fecal discharges, and moisture.
5. In such situations it is capable of reproducing itself.

With reference to the question within what period the stools which are innocuous when voided develop their infecting properties nothing definite is known, but facts which he cites would indicate that the period of safety from infection is brief and limited to a very few hours.

After discussing at some length the dangers dependent upon imperfect drainage and sewerage, he recurs to the main topic of his paper with full conviction that safety lies not in more perfect plumber's work, but in the thorough disinfection of the stools immediately after they have been voided.

Where so much is at stake it is a matter of grave importance that the method and agent employed should be efficient. In discussing this point he quotes Koch as authority for the statement that the only certain disinfectants are chlorine, bromine and corrosive sublimate. The result of his studies and experiments have led him to the conviction that we have in corrosive sublimate a most efficient disinfectant, which is moderate in cost, free from color and odor, and convenient to use and rapid in its action; and to this agent he gives the preference for use in preventing the spread of enteric fever. As to the method of using, he recommends that the physician himself, to avoid accidental poisoning, take to the house of the patient two drams of corrosive sublimate and dissolve it in a gallon of water in a large bottle or demijohn, which is to be labeled, and given into the charge of the nurse. Immediately after the bed-pan has been used, a sufficient quantity of the solution should be poured over the fecal contents to cover them. Hard lumps, when present, should be broken up in the solution. The pan should be allowed to stand for fifteen minutes before emptying, and if emptied into a water-closet the valve must be kept open long enough to secure the thorough flushing of the trap. A small quantity of the disinfectant solution should then be poured into the basin of the water closet and allowed to remain, and some of the same solution should also

be kept in the bed-pan in the intervals of its use. The linen should be sprinkled with the same solution, and portions stained with the discharges must be thoroughly wet with it, or even allowed to soak for a time before sending it to the laundry. The clothing should also be boiled for some hours, and thoroughly rinsed before being handled by the washerwoman.

An exhaustive paper by Dr. Geo. M. Sternberg, in the same journal compares the relative germicide value of a number of therapeutic agents; and fully verifies the conclusions of Koch and others already referred to with regard to the value of corrosive sublimate solutions.

AS OTHERS SEE US—"AMERICAN NERVOUSNESS."

A German physician settled in New York city contributes a paper to the last issue of *Virchow's Archives*, in which he discusses in a philosophic manner the causes of the American psychological constitution that is generally admitted to be nationally characteristic: "It is acknowledged by every physician who has practiced some time in America, that disorders of the nervous system, from the so-called nervousness, which properly indicates merely a predisposition to nervous disease, to actual functional neuroses and psychoses, occur in unusual frequency and intensity in this country." The testimony in the Guiteau case is referred to in support of this statement, one expert exaggeratively declaring that one out of every five in America is mentally diseased—many in active life exhibiting their lack of mental equilibrium only in obscure and easily overlooked ways.

The writer refuses to accept in explanation of American "nervousness" the influence of modern civilization, aided by mode of life, excesses, etc. Indeed, he sees in the manifold

operations of the civilizing agencies of the century the only basis for the maintenance of our people.

The endurance and vitality of a stock or race depend chiefly upon the state of those functions that preserve the individual, namely those of nutrition and reproduction. That dyspepsia in all its forms is an American disease pre-eminently, we are informed is recognized even in Europe; children as well as adults are the victims. Even our appetite is impugned as being much behind that of the European: "People are not seldom met who never feel thirst, and consequently seldom drink." This last discovery will give a satisfactory explanation of the prohibition agitation. The common view that our bad digestion is due to bad cooking and the hasty plate of soup is not endorsed; a universal condition implies not casual and accidental causes, but one co-extensive, therefore some inherent, constitutional tendency is to be inferred. So also in regard to the lack of fecundity of our people: "The American families are usually small, and very many couples are childless." The author cites some current opinions only to discard them as insufficient—as the prevention of impregnation by various means. Prevalence of sexual indifference among women, masculine impotence, together with the great frequency of female disorders (hence the number and skill of American gynecologists), he alleges as accounting for the small increase of native population and indicating weakness of the sexual forces. It is incidentally mentioned that what is here regarded as sexual excess, in Europe would not be so considered. This statement, together with the small respect expressed for the capacity of the American stomach, will sufficiently set forth the criticism upon the physical stamina of Americans.

Full justice is accorded to the excellence of the hygienic conditions under which we live: "They are the most favorable which the human race anywhere enjoys." The daily bill of

fare indulged in by the masses, as described, should invite an exodus en masse of the German laboring and middle classes. Dwellings, clothing, and personal cleanliness especially are extolled. Therefore the conditions of daily life should rather favor vigorous bodily health and abundant fecundity.

The pervading cause that militates against the Caucasian in North America, the doctor finds in the climate and other terrestrial conditions. We are really a race foreign to the land we inhabit, not intermixing in blood with the aborigines, those sprung from the soil; as a people we tend to extinction according to a general law; it is the great and constant influx of fresh population from the mother continent that maintains our strength. Only after a long period of acclimation shall we be able to appease the powers that preside over our conquest, and shall become a self-propagating people. During this gradual assimilation, the different nationalities contributing to form our complex population undergo a physical transformation visible to the eye; for instance, the German-American, after a few generations, becomes "more slender than his Germanic ancestor, he carries himself more erect, his expression is shrewd and energetic. In general there is not observed among Americans that stupid physiognomy so common among the masses in Europe, especially among the peasants. Every stranger remarks that beauty, which in Europe is only the infrequent privilege of the higher classes, in America tends to be universal." With which handsome compliment we will leave this discreet writer, adding only that he prophesies an intellectual future as great and brilliant for this composite nation as is its present state in regard to material progress.

The last sentence in the article, however, deserves to be borne in mind by our traveling invalids in Europe: "I cannot enough insist upon the intolerance of Americans in regard to heroic remedies and violent methods of treatment in general."

BOOK REVIEWS AND NOTICES.

PROHIBITION VS. PERSONAL LIBERTY. BY AHNER M. COLLINS, A. M., M. D.
16mo., pp. 160; paper, 35 cents; cloth, 50 cents. *St. Louis, Mo.: John Burns.* 1882.

Dr. Collins, who has already contributed several publications toward the literature of the day upon subjects of practical interest, makes an earnest appeal in the pages of this book for careful consideration and prompt action in regard to the topic treated.

This appeal is based upon a realizing sense of the deep injury done to society by the liquor traffic under its present limited restriction,—of the bearing upon our nation's future history of such characteristics as are fostered by the influences naturally associated with the traffic, and of the desperate opposition made and likely to be made to the destruction of this nefarious business by those interested in it for purely selfish ends.

While Dr. Collins claims that the appetite for alcoholic liquors is purely artificial, never natural, he has not the slightest doubt of the transmissibility of the alcoholic appetite. He describes graphically the tremendous power of this appetite by showing that it is stronger than human reason, conscience, affection, love of fame, love of wealth, or honorable character.

The author takes the ground that while the view of holding an individual responsible for the early stages of this indulgence is proper, yet the habit becomes a disease, the pathology of which is too often ignored by physicians as well as reformers, and he unqualifiedly condemns the attempt to cure the habit by substituting the milder alcoholic drinks for the accustomed liquor.

We concur most heartily with his emphatic christening of many gin and rum-compounded patent medicines, as "Devil's inventions."

In regard to the medical use of alcohol, he says: "Every

form of disease can be better treated without it than with it." Of course we assume that he does not include the use of the tinctures of various drugs in his condemnation of the use of alcohol as a medicine.

In discussing the question "Is alcohol a stimulant?" he makes the astonishing assertion that "it is contrary to all known and acknowledged law that that which is a paralyzer in large doses is a stimulant in small ones." The known and acknowledged law is the reverse of this, viz., that that which is a stimulant in small doses is invariably a paralyzant in large doses.

The book is a good one for popular reading. The aim and tendency are good, and the grounds taken are on the whole well sustained and not unreasonable.

MICROSCOPICAL MORPHOLOGY OF THE ANIMAL BODY IN HEALTH AND DISEASE. BY C. HEITZMANN, M. D. Late Lecturer on Morbid Anatomy in the University of Vienna. With 830 original engravings. New York: J. H. Vail & Co. 1883. 8vo., pp., 849; cloth. (St. Louis, J. H. Chambers & Co.)

This book of Dr. Heitzmann's is one of the most noteworthy productions of the day, and to the American medical public it marks an epoch in our scientific advancement; for while we, as a nation, have been prolific in practical work of the highest value, but little attention has been paid to more abstract studies and speculation—in short, to what is termed the purely scientific side of the calling. The reasons for this are obvious and need not be dwelt upon; but of late the signs and symptoms of the times are pointing in another direction, and a number of books dealing with such questions have been issued from the press. Dr. Heitzmann's volume occupies a unique position. It is the outcome of the laborious work of many years of rigid, painstaking investigation, by an observer who has long been recognized in both hemispheres as an authority in this especial domain.

In the space at our command we cannot enter into a criticism of the theories and facts which have been presented by the author and his collaborators, but the reader will find that the whole work is characterized by a conscientious thoroughness, which will command his admiration, if not always his unqualified assent. Many of the chapters are the result of work

done by various individuals in Dr. Heitzmann's laboratory, presumably under his supervision, or at any rate inspired by his especial views and methods. The principal chapters are from Dr. Heitzmann himself. The book cannot be called a systematic treatise—indeed, it manifestly lacks systematic arrangement—but it has its greatest value in that it represents a great body of purely original research, based upon certain central ideas. The illustrations are perfectly exquisite, and are all original, the type and paper are of unusual goodness; and in short the whole work scientifically, artistically, typographically, is a monument to the genius, culture and untiring industry of its distinguished author.

W. A. H.

ON ASTHMA; ITS PATHOLOGY AND TREATMENT. BY HENRY HYDE SALTER, M. D., F. R. S. First American from the last English Edition. *New York: Wm. Wood and Company.* 8vo., pp. 284; cloth. (Wood's Library, 1882.)

Hyde Salter's work on asthma has long been known as one of the English classics of medicine. For patient investigations and thorough researches of the varying and strange phenomena of asthma, it has no equal in any language. As such it will be gladly welcomed on this side of the Atlantic in this new, not "the first," American edition. The English edition was issued in 1868, and this edition is simply a reprint of the English. Since the publication of the last English edition, the knowledge of the pathology and etiology of the asthmatic paroxysms has been greatly extended, through the labors especially of German and American investigators; but these results find no place in this volume. This defect is not only apparent in the study of the causes and routine of asthmatic phenomena, but it is seen noticeably in the chapters on the treatment. The book is simply an American reprint of an admirable but old English work.

W. C. G.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. BY JAMES NEVINS HYDE, A. M., M. D., Prof. of Skin and Venereal Diseases, Rush Medical College, etc., etc. *Phila.: H. C. Lea's Son & Co.* 1883. 8vo., pp. 572. (St. Louis, J. H. Chambers & Co.)

We are justified in saying that America can boast to-day a school of dermatology, certainly not in a narrow sense of the word, indeed, it is a word which should have no place in the republic of science, but in the broadest meaning of the

term; that is to say, we have in this country at the present time a band of energetic dermatologists, who are doing scientific and practical work of the highest value. It is not going far out of the way in declaring that the American Dermatological Association is largely responsible for this satisfactory condition of affairs. We have already a rich cutaneous literature in the shape of valuable atlases, systematic treatises, exhaustive monographs, a special journal and society transactions.

The comprehensive treatise of Dr. Hyde is a very valuable and welcome addition to the department of dermatology, and being the conscientious work of a learned teacher and practitioner in this field fully meets all the expectations formed of it. It is a book which we can heartily commend both to the special student and to the general practitioner. W. A. H.

MANUAL OF GYNECOLOGY. BY D. BERRY HART, M. D., F. R. C. P. E., etc., and A. H. BARBOUR, M. A., M. B., etc. Vol. II. With one lithograph and two hundred and ten woodcuts. New York: William Wood & Co. 1883. (Wood's Library.) 8vo., pp. 366; cloth. (Through the H. R. Hildreth Printing Co., St. Louis.)

This second volume of Hart and Barbour's Gynecology for 1883 well sustains the expectations which were aroused by the first, and the work is a very satisfactory one. There is little fault to be found with it in any particular, and there is much that is to be highly commended. We can most heartily commend to our readers this work as reliable and judicious. If equally good judgment has been displayed in the selection of the rest of the volumes for the "Wood's Library" for 1883, it will be an extremely valuable series for the subscribers.

EARLY AID IN INJURIES AND ACCIDENTS. BY DR. F. ESMARCH. Translated from the German by H. R. H. PRINCESS CHRISTIAN. Philadelphia: Henry C. Lea's Son & Co. 1883. 16mo., pp. 117; cloth, \$——. (For sale in St. Louis by J. H. Chambers & Co.)

This little volume is a translation of an admirable series of lectures by Prof. Esmarch, the celebrated surgeon of the University of Kiel, in what he calls his "Samaritan School," founded for the purpose of giving to the laity, work-people and others, instruction as to the means and methods which they may adopt in order to render efficient aid to themselves or comrades in cases of special emergency or accident. The

information contained in these lectures should be accessible to every one, and the manner in which it is given in this little book is very commendable. Samaritan Schools and lectures to the people on these subjects should be established all over our country. The book in hand should have a large circulation, and we can place it in the hands of our patients with entire confidence that it will be useful to them.

PRACTICAL TREATISE ON THE DISEASES OF THE UTERUS, OVARIES AND FALLOPIAN TUBES. BY A. COURTY, Professor of Clinical Surgery, Montpellier, France. Philadelphia: P. Blakiston, Son & Co. 1882. 8vo., pp. — cloth. (St. Louis, J. H. Chambers & Co.)

The book before us is a translation of the third edition, by Agnes McKaren, M. D., M. K. Q. C. P. I., with a preface by I. Matthews Duncan, M. D., LL. D., F. R. S. E.

Dr. Duncan in his preface acknowledges the vigorous thriving of gynecology in this country. This expression is the more grateful since Tilt has so lately in his work upon the Change of Life gone so far out of the way to condemn American gynecology and our more prominent gynecologists. It is doubtful whether too many books can be written on gynecology, as a late writer has expressed it, the growth of this branch has been so rapid that its own ripening fruitage can be gathered only by close gleanings. In no department of medicine has more been achieved or more striking results been obtained. Its surgery has made even the lesions of parturition almost certain of being cured.

The first one hundred pages of this work are devoted to a subject too much neglected in our text books, namely, the anatomy, physiology and teratology of the organs of generation. In the following one hundred and fifty pages is given in a masterly manner a general survey of uterine diseases, leaving five hundred pages in the which uterine disease is considered in detail. We have but few text books which go more thoroughly or practically into detail than this of Courty. He thinks the importance of flexion of the neck of the uterus has been neglected in America. In the use of sponge tents he far prefers them to laminaria, and contends that the latter should never be used for the os internum; that the swelling of the laminaria above the constriction renders the extraction of the

stem impossible without laceration which may endanger the life of the patients. He is a strong advocate of the utility of hysterotomy, but in the operation opposes the use either of scissors or of the simpler or double metrotomes. In the treatment of proiedentia of the womb, though he reports several cases upon which he has operated, yet he seems to hold to his old view that surgical treatment is useless.

This work cannot be considered abreast with what we view as modern gynecology, yet there are but few books which will be of greater service either to the general practitioner or the specialist, and none which more richly deserves a place on the shelf of a well stocked medical library. The American publishers, P. Blakiston, Son & Co., of Philadelphia, deserve credit for the manner in which they have presented it to the readers.

P. V. S.

EXPERIMENTAL PHARMACOLOGY. A Handbook of Methods for Studying the Physiological Action of Drugs. BY L. HERMANN, Prof. of Physiology in the University of Zürich. Translated, etc., by ROBERT M. SMITH, M. D., etc. With thirty-two illustrations on wood. Philadelphia: Henry C. Lea's Son & Co. 1883. 12mo., pp. 201; cloth. (Through J. H. Chambers & Co., St. Louis.)

This is a manual for the practical study of pharmacology by means of experiments upon the lower animals. The author describes very clearly and distinctly the various methods of experimentation, the apparatus needed and the ways of using the same; and with the copious notes and additions given by the translator there is every needed direction for practical work in this department, which is yearly assuming greater and greater importance. Just as actual experimentation has been the means of developing our modern knowledge of physiology, so will it be the means of giving us equally definite and just as important knowledge of the action of drugs, which is the field aimed at in pharmacology. It is well that such a book has been so well translated and brought within the reach of American readers, and we trust that opportunities will soon be afforded in all our great centers of medical education for practical work in this department.

BOOKS AND PAMPHLETS RECEIVED.

Diseases of the Eye. By Edward Nettleship, F. R. C. S. Second American edition, from the second revised and enlarged English edition. Philadelphia: Henry C. Lea's Son & Co. 12mo., pp. 416. —A Manual of Auscultation and Percussion. By Austin Flint, M. D. Third edition revised. Philadelphia: Henry C. Lea's Son & Co. 16mo., pp. 242. —Allen's Human Anatomy. Section IV. Arteries, Veins and Lymphatics. Philadelphia: Henry C. Lea's Son & Co. 4to., pp. 124. —Cornell University Register, 1882-83. Svo., pp. 123. —Annual Report of the Health Department of the City and County of San Francisco, for the Fiscal Year ending June 30, 1882. Svo., pp. 121. —Seventh Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois. 8vo., pp. 139. —Proposed Ordinance, and Rules and Regulations for Regulating Plumbing, House Drainage, etc., in Philadelphia, as reported by the Committee of 21. —The Electric Light in Surgical Diagnosis. By Roswell Park, M. D., of Chicago. Reprint from the *Annals of Anatomy and Surgery*. March, 1883. —Secondary Batteries and the So-Called Storage of Electricity. By Roswell Park, A. M., M. D. Reprinted from the *Chicago Medical Journal and Examiner*. Feb., '83. —Review of the Drug Trade of New York, for year 1882. Prepared by D. C. Robbins, Esq. —Fourth Annual Report of the Board of Health of the Taxing District of Shelby Co. (City of Memphis), for 1882. By G. B. Thornton, M. D., Pres't. —Medical and Surgical History of the War of the Rebellion. Part III. Vol II., Surgical History. Prepared under the direction of Joseph K. Barnes, Surg. Gen'l U. S. Army, by George A. Otis and D. L. Huntington, Surgeons U. S. Army. Washington, D. C.: Gov't Printing Office. 1883. 4to., pp. 986-28. —Manual of Gynecology. By D. Berry Hart, M. D., F. R. C. P. E., and A. H. Barbour, M. A., B. Sc., etc. Vol. II. With one lithograph and two hundred and ten wood cuts. New York: Wm. Wood & Co. 1883. 8vo., pp. 366. —Illustrated Almanac of the New Orleans Times Democrat for 1883. Sto., pp. 168. —The Doctorate Address, delivered at the Fortieth Annual Commencement Exercises of Rush Medical College. Chicago, 1883. By Moses Gunn, M. D., LL. D. Reprint from *Chicago Medical Journal and Examiner*.

THE TIMES-DEMOCRAT ALMANAC, published by the *Times-Democrat*, New Orleans, is a pamphlet of 160 pages, profusely illustrated and containing a variety of valuable statistics with reference to political and economical matters in the southern states.

TRANSLATIONS.

A CASE OF CYSTICERCI IN MAN.

BY M. TROISIER, PARIS.

Cases of cysticerci are met from time to time in Paris. This man, a finisher of bronze, is aged 36 years; he has always lived in Paris. In September, 1881, he consulted M. Fournaise for a little ovoid tumor of the size of a hazelnut situated in the thickness of the right cheek. M. Fournaise thought immediately that he had to do with a cysticercus; he refrained from all treatment, and requested the patient to return and see him after a few months, supposing that other tumors would appear sooner or later. In fact, there appeared fifteen new cysts, four on the neck, two on the chest, one on the epigastrium, one on the back, two on the perineum, two on the right thigh, one in the fold of the left groin, one on each arm. These cysts appeared to be situated in the sub-cutaneous cellular tissue or under the superficial aponeurosis of the muscles; they are ovoid, measuring about one centimeter in the longest diameter and five to six millimeters in breadth; they are smooth and of firm consistence; some do not exceed the dimensions of a grain of wheat, and are hard as stone. M. Fournaise brought this patient to me at the Hôtel Dieu July 31. I had M. Vulpian see him, and we both confirmed the diagnosis of M. Fournaise. Moreover the patient consented to the removal of one of the cysts. I removed the one situated at the outer and upper part of the left arm. After having produced local anesthesia by ether spray, I made an incision in the skin about three centimeters long; it was necessary to pass through the subcutaneous cellulo-adipose tissue, and it was only after having opened the superficial aponeurosis of the deltoid that the cyst could be raised up with a spatula. The cyst resembled certain medicated capsules so markedly that the comparison immediately came into the minds of several assistants. It contained a liquid limpid

like water. It was composed of two parts—an external shell formed by a membrane of fibrous appearance, and a vesicle contained in this shell. At one point of the vesicle there was a grayish spot, at the site of which I found on microscopic examination some of the hooks of cysticerci and some calcareous corpuscles. It is impossible to tell whether in addition to these fifteen cysts there is a greater number of cysticerci in the depths of the muscles or in the viscera. The man presents no symptoms referable to the development or presence of cysticerci, and his health appears not to have been disturbed at all.

That which gave a special interest to the case is the fact that the patient had a tape-worm last year. In August, 1881, he observed that he was voiding links of worm in his stools; in October he took, by the advice of M. Fournaise, a dose (4 drams) of granulated koussou. The worm was expelled with the head, which presents all the characteristics of *tenia solium* or *tenia armata*—four air-holes and a double row of hooks.

This coincidence (of tape-worm and cysticerci) has already been observed a certain number of times, and as it is generally admitted that the cysticerci in man, as those of swine, come from the *tenia solium*, some authors do not hesitate to assert that the development of cysticerci in those who have a tape-worm may result from auto-infection; on this hypothesis they must pass from the intestine into the stomach; we know that the fertilized eggs must undergo the action of the gastric juice in order that the embryo may be set at liberty. One may then suppose that in cases of coincidence of cysticerci with *tenia* the same individual has accidentally ingested some ova expelled from him.

However it be, if the cysticerci of man which present a striking analogy with those of swine are nothing else than the larvæ of *tenia solium*, it is necessary to admit that this cestoid can live in man in the state of scolex and in the state of strobile, which is a remarkable exception to the law of alternate generation formulated by Steenstrup. This it is, moreover, which the experiments of M. Redon seem to demonstrate. This physician, under the advice of MM. Lertet and Chauveau, had the courage to swallow four cysticerci taken from a dead body in the amphitheatre of the hospitals of Lyons. "After

three months and two days' delay," he says, "I determined the presence of links of worm in my stools. At the first examination, M. Lertet, one of those most skilled in helminthology, thought he could assert that the proglottis and ova pertained to the *tenia solium*. This opinion was soon confirmed by the expulsion of a complete strobile, which was deposited in the museum of the Faculty of Medicine of Lyons." In order to render his experiments more conclusive, M. Redon caused a certain number of sucking pigs and puppies to swallow cysticerci, these being from a *tenia* of an animal in intimate association with man. Man alone, of the three subjects placed under experiment, has furnished the favorable medium. M. Redon concludes from his experiments that there is complete identity between the *cysticercus* of man and that of swine, since a *cysticercus* from a human cadaver has produced a *tenia solium* as well as a measly *cysticercus* produced it. This entozoon could live then in the cystic state and in the tape form in man, and its evolution from the state of the larva to the strobilar state may be effected, if not in the same individual, at least in the same species. If this be so, we may equally suppose that the *tenia solium* can produce the measly condition as well in man as in swine.—*L'Union Méd.*, Dec. 12, '82.

NOTE ON THE RELATION BETWEEN THE TIME
OF OVULATION, OF COPULATION
AND IMPREGNATION.

BY M. P.-L. PANUM, COPENHAGEN.

A married lady of entire respectability, aged forty-three years, had already had seven labors, the last one at the end of 1879. About two years before, she had had a miscarriage at the third month of pregnancy, followed in about a year by another miscarriage at the same period. On advice given emphatically by her physician, as well to her as to her husband, who was disturbed, as was the lady herself, by her delicate health, they refrained from all sexual intercourse during the last year, except once only, April 10, of the present year. It appeared especially certain that there had been no sexual rela-

tions between them between April 10 and June 10. Menstruation, otherwise perfectly regular (every four weeks and lasting five days every time), had, however, appeared the last three times with an interval of fifteen days and a duration of three days. The last menstruation had taken place from the third to the fifth days of April. There did not then appear the least trace of blood from that time until June 8, at which date there occurred a hemorrhage followed by an abortion two days later, June 10. The fetus was perfectly fresh and normal, offering all the characteristics of an age of four and a half to five weeks at most. It is evident then that it could not come from an ovulation at the last observed menstruation, viz., in April, but that we are forced to refer it to a latent ovulation which must have taken place without hemorrhage at the commencement of May. It cannot be doubted then, it would seem, that in this case the spermatozooids had been preserved during three weeks without losing their activity in the genital organs of the woman (probably in the *receptaculum seminis* situated at the end of the tube indicated by Henle).—*Nordiskt Mediciniskt Arkiv*, 1882.

COLLEGE-BRED MEN IN THE MEDICAL PROFESSION.—Dr. Chas. McIntire, Jr., in a paper read before the American Academy of Medicine, October 27, 1882, gave some interesting statistics with reference to the percentage of college-bred men in the medical profession. From some inquiries made in a number of medical societies in New Jersey and Pennsylvania, including 222 members, there were 28 A. B.s (12.6 per cent.), 16 who had taken partial collegiate courses (7.2 per cent.), and 178 having no collegiate training (80.2 per cent.). Taking the triennial catalogues of fifty-eight different colleges and universities, he found that of 38,054 alumni graduated since 1825, 3,577=9.2 per cent. had adopted the profession of medicine; 9,991=21 per cent., that of theology; 6,165=19.7 per cent., that of the law. Studying these figures in connection with others which we will not quote for lack of space, he asks, "Can you escape the conclusion that classing the *medical business* among the learned professions is altogether a mistake?"

REPORTS ON PROGRESS.

MEDICINE.

Cases of Mushroom-Poisoning.—DR. JAS. D. TRASK reports two series of cases of mushroom-poisoning. In all these cases the mushrooms were gathered by mistake, and show that there can be no question that the *Amanita phalloides* and *A. verna*, and especially the former, are the varieties that are almost invariably thus mistaken. These are very common; specimens of them vary in the length and shape of the stems, but they can always be distinguished by the color of their gills. It must be carefully borne in mind that while the under surface of these two poisonous varieties is always white, that of the edible *campestris* is always of pink of varying shade. In the preparation of mushrooms for the table, great care ought to be exercised in scrutinizing each one that has been gathered for food, and if the color of the gills is not satisfactory, such should be immediately rejected. If this precaution is taken, and they are gathered only from the open field and not from the woods, it seems impossible that any mistake can occur, or that any strictly poisonous effects can result.—*Am. Jour. of Med. Sci.*, April, 1883.

Renal Inadequacy.—DR. ANDREW CLARK says, "There is a certain state of the kidney in which, without any alteration of structure that the eye can detect, it can, nevertheless, not produce a perfectly healthy urine. It is a urine low in density and deficient in solid constituents, principally in urea and its congeners. I call this state renal inadequacy. You may say, 'It seems scarcely wise to introduce a name like that, when probably it is nothing less than an early stage of Bright's disease. Why bring in another name?' I will not say that it is not an early stage of Bright's disease; I do not know. I think it need not necessarily be; but I shall assume that it is, perhaps,

a very early stage of Bright's disease. I nevertheless think it of practical value—and we who are here to-night are practical men—to recognize by a distinct name a state which may remain as it is during the whole period of life, which is nevertheless capable of removal, and which, if unnoticed, may lead to serious injury to the patient. Let me explain. The people who have this renal inadequacy are characterised by three things particularly. First and foremost, they are characterised by a curious inability properly to repair damages done to them either by accident or by disease. I have no doubt you as well as I have often been puzzled to know why, in particular cases, they could not repair a common accident; or why, in a disease such as pneumonia, the exuded stuff was not melted and speedily swept away; why a man who had met with some trifling accident in the wrist or shoulder remained suffering from it. Then, they not only repair damages of this kind slowly, but they are peculiarly vulnerable. They are a people, as a rule, who are always catching cold, and who, when they catch cold, come within the category of the first characteristic—namely, that they do not get rid of the cold. They are the people who, without apparent reason, and without other existing disease, get pneumonias, pleurisies, pericarditis, and the like. Then, thirdly—and, I think, almost the most important thing to be noticed about these cases—you can never be sure of the result of the performance of an ordinary surgical operation upon them. It is this class of people, as I had the opportunity a few years ago, in London, of discovering, that die from a simple operation by hemorrhage. It is this class of people who have an abscess opened and immediately become what is called pyemic. It is this class of people who, without his being able to explain it, attracted the notice of that distinguished surgeon Sir James Paget. Some years ago he said, ‘Whenever I find a man in ill-health, without definite cause for the ill-health, I feel sure that my chances of success in operating upon him are diminished by at least one-half.’”—*British Medical Journal*, March 10, 1883.

Electricity in Malaria.—G. A. SPRECHOR advances the theory that a disturbance of natural electrical conditions is the cause or a cause of malarial diseases and of certain epidemic dis-

eases as cholera. He cites the statement of Audrand that during the great cholera epidemic in Paris, an electrical machine which he was in the habit of using gave, during April and May, sparks not more than half as long as those which it usually emitted. During June 4th, 5th and 6th, only a slight crackling could be obtained, and on the 7th of that month no electrical phenomena could be excited. The days of the greatest mortality corresponded with the absence of electrical manifestations, and the rapid abatement of the epidemic coincided with a return of electrical phenomena in the atmosphere.

Dr. Sprechor suggests that the extension of our telegraph and railroad systems through the country may have some influence in modifying and directing malarial troubles, by the formation of extensive conductors of electricity, and notes the effect these have upon the manifestation of electrical phenomena by the fact, which he asserts, that our great hurricanes and tornadoes follow the lines of railroads. He further suggests that an explanation of the fact that animals and negroes are not at all or very little affected by malarial disease may be found in the fact that the hairy coat of the one and the dense oily skin of the other are a more or less perfect means of electrically insulating them—*Pacific Med. and Surg. Jour.*, Feb., 1883.

Capsicum as an External Application.—J. A. E. STUART recommends the use of capsicum as a rubefacient application in lumbago and strains of the muscles of the back. He uses the following formula:

R. Tr. capsici, - - - - 3i.
 Ol. olivæ - - - - ad 3℥

M. Sig. Liniment to be rubbed in frequently.

Cholera in Calcutta.—The deaths from this disease in the last three months of 1882 numbered respectively 91, 232, 411, or a total of 734 for the quarter, or 373 in excess of the mean for the last ten years. The disease was of a virulent type, the proportion of deaths to cases being remarkably high. During January also the death rate from this disease was unusually high.—*Med. News*, March 24, 1883.

Cholera in Mexico.—In Tehuantepec, Mexico, a terrible epidemic commenced December 13, and rapidly increased during the two weeks following until at its height one hundred persons died each day. In January the epidemic abated, and by the middle of the month had nearly but not entirely disappeared. The characteristic symptoms of the disease were in all essential particulars those of Asiatic cholera.

Cholera developing *de novo* on our own continent is a matter of serious importance to us in this country. Our health legislation is crude in comparison with that of Europe, and we are relatively helpless against such a disease originating on this side of the water.—*Med. News*, March 24, 1883.

To Mask Iodoform.—DR. C. SCHERK recommends carbolic acid for the purpose of disguising the odor of iodoform. He asserts that on rubbing together 10 gms. (3iiss.) of iodoform with .05 gms. ($\frac{3}{4}$ gr.) of carbolic acid, and two drops of oil of peppermint, the iodoform odor is completely masked and does not return even on heating.—*Am. Jour. Phar.*, March, 1883.—*Phar. Zeitung*, 1882.

Sulphuric Ether in Sciatica and Lumbago.—J. BRINDLEY JAMES highly commends the subcutaneous injection of sulphuric ether in the treatment of these affections. After a preliminary dry-cupping over the seat of the lesion, he injects ten minims of sulphuric ether, gradually increasing the quantity until the injection reaches thirty minims if there be not evident improvement in the course of a week's treatment. He usually precedes this by a brisk cathartic, and administers five grains of salicylate of soda in an ounce of infusion of gentian every two hours in connection with the injections. He has used this treatment for four years now with invariably satisfactory results.—*Brit. Med. Jour.*, March 17, 1883..

Iodine as a Stomachic Sedative.—DR. T. T. GAUNT has for a number of years been employing the compound tincture of iodine in drop doses in nearly all forms of emesis, and reports thirteen cases of the most varied character in all of which vomiting was promptly arrested by the use of this drug. The employment of iodine for the relief of the vomiting of preg-

nancy has been somewhat in vogue for a number of years. And while the success attending its use has been pointed out with more or less enthusiasm its exact value has never been established.—*Am. Jour. of Med. Sci.*, April, 1883.

THE TRI-STATE MEDICAL SOCIETY.—One of the most important medical events of the year will be the meeting of the Tri-State Medical Society, at Indianapolis in September. Already the work for this convention is far advanced, owing to the almost perfect organization of the society.

Some years ago the Society found that the hospitality of the citizens in the places of meeting to some extent interfered with its proper work, and that long papers crowded out shorter and better ones. It was then resolved that the society accept of no banquets, etc., and that all papers be limited to twenty-five minutes.

From that time the increase in interest and attendance was marked, and now during each of the three days of the meeting three sessions are held, fully occupied with short, practical papers and discussions, the authors having been previously selected by the committee on programme.

The "Tri-State" is in exact harmony with the different state and other local societies, leaving to them all matters of legislation and ethics, and requiring that its members be also members in good standing of one or more of these.

The territory embraced is Indiana, Kentucky and Illinois, to which Cincinnati and St. Louis have been added. At the last meeting there were many visitors from other states.

The "Tri-State" holds front rank in reputation in both Europe and America as a working society, and work has been the secret of its success.

For further information address any of the officers: Dr. Wm. Porter, St. Louis, President; Dr. G. W. Burton, Mitchell, Ind., Secretary; Dr. F. W. Beard, Vincennes, Ind., Treasurer; Dr. T. B. Harvey, Indianapolis, Chairman of Committee of Arrangements; Dr. T. L. Thompson, Indianapolis, Chairman of Committee on Programme. Respectfully,

G. W. BURTON, Sec'y.

SOCIETY PROCEEDINGS.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY
OF LONDON.

Regular Meeting, held March 27, 1883.—MR. SAVORY, of Guy's, in the Chair.

Reported by A. J. STEELE, M. D.

I. "ACUTE RICKETS," MORE PROPERLY "SCURVY."

DR. BARLOW, of the University College Hospital, reported the case of a boy aged fifteen months, of a pale, sallow complexion, fat but flabby, temperature 101° ; no nervous or visceral disease, except that the liver was larger than normal. He was continually moaning, and when approached or touched screamed violently. The dominant symptoms were in the limbs, the right wrist was dropped, and the left thigh continually drawn up; the ribs were beaded, but there was no grooving of the thorax; the left thigh and leg were tightly swollen, assuming a cylindrical shape; the epiphyses of the knees were enlarged, and there was a tendency to knock-knee. There was profuse sweating about the head.

He was a first child, born before term, vigorous while nursing, i. e. for six months; afterwards, the mother failing, he was put on artificial food—Nestle's, etc. At thirteen months old sat up well, and stood without assistance; soon thereafter he lost his strength, the left leg and ankle became swollen, and he shrieked when approached.

The child was obviously the subject of moderate rickets, and the opinion was formed that under the periosteum of the left femur and tibia there was an effusion of blood, and that the extreme tenseness of the limb was due to blood extravasation in the deeper muscular layers, with the serum filtered into the more superficial parts of the limb; and the view was held that the boy was suffering from the supervention of scurvy on rickets, though with no sponginess of the gums.

The treatment adopted was to surround the whole of the left lower limb and right leg with wet compresses which had been thoroughly wrung out, surrounded with dry cloths closely applied. The diet was changed to the juice of raw beef sweetened a little, cow's milk, strained gruel, barley water, and orange juice. The crib was placed near the fire, and the window opened for fresh air. At first he took one and later on two tablespoonfuls of cod-liver oil, and an occasional powder of rhubarb and soda. At the end of a month gentle shampooing with oil, and douches of tepid and then cold water were commenced. Under this treatment he improved in every particular, so that within eight weeks he got on his knees, and could stand with a little support.

DR. BARLOW gave an analysis of ten of his own cases and twenty reported by others. The latter had been published under the names of "acute rickets," "infantile scurvy," "hemorrhagic periostitis," and "osteal and pericosteal cachexia." Rickets was present in a considerable number of cases, though in some the symptoms were slight. There doubtless is an affinity between the disease under consideration and rickets, both depending on improper diet and bad hygienic surroundings, and yet they are distinct, and, too, these cases are not due to congenital syphilis. The doctor showed that there was no affinity between this disease and acute periostitis, hemophilia or purpura. Its history points definitely to "scurvy."

Beautiful specimens were exhibited showing the effusion of blood in connection with the periosteum.

II. SUBPERIOSTEAL HEMORRHAGE, PROBABLY SCORBUTIC.

MR. PAGE, Surgeon to St. Mary's Hospital, reported the case of an infant aged nine months, wasted, pale and ill, with enormous enlargement of the shafts of the left femur and tibia and upper third of the right tibia. The swelling had been coming on for about a month. The neighboring joints were not affected, and there were no superficial signs of inflammation. Beading of the ribs and enlargement of one radius led to the belief that the condition was in some way due to rickets, strengthened by the fact that the child had been fed on Swiss milk and Nestle's and Savory's foods. No history of syphilis.

A trocar being passed at one point of the thigh gave exit to

a few drops of sanguineous fluid, the bone being found bare. Thereupon incisions were made through the periosteum of both thigh and leg, and large blood-clots, which had to be broken up with the finger before any part of them could be removed, were found lying around the shafts, the periosteum being stripped up therefrom throughout their entire length. With proper food the child began now to improve, blood-clots were expelled, there was little or no suppuration, the wounds healed, and three months afterwards the bones had resumed their normal size, and the periosteum its natural position in contact with the shafts. No hemorrhagic diathesis existed in the family.

MR. PAGE was inclined to believe the trouble to be scorbutic rather than rickety, and the hemorrhage to be a more essential element of the pathological condition than inflammation of the periosteum. The child had been reared on scurvy diet, in the one case; and there had been no evidence of periostitis—both the membrane and bone having survived the attack—in the other.

The two or three similar recorded cases point, as does this, to "scurvy" as the essential disease.

III. SCURVY WITH DILATATION OF THE HEART AND RETINAL HEMORRHAGES.

DR. WHITE, Demonstrator of Anatomy at Guy's, reported a case of severe scurvy in an adult, who had the swollen gums and usual bruise-like swellings about the body. The area of cardiac dullness was increased, there was a loud systolic murmur in the third left intercostal space, the first sound at the apex was muffled, arterial murmurs were present in the neck, pulse was almost thready.

In the right eye were two large hemorrhages, one above and one below the disc. They were striated at the margin, white in the center. The blood was poor in corpuscles and hemoglobin.

Patient was put on lime juice and full diet; under which he improved, the retinal hemorrhages becoming less distinct, and the blood increasing in richness. The systolic murmurs disappeared, but the apex beat remained in the same position—fifth space, one inch outside of the nipple line.

The case was interesting as showing: First, the influence of a previous dysentery in making the attack of scurvy severe, as evidenced by the marked blood changes; second, the presence of retinal hemorrhages, a very unusual occurrence as compared with other anemic diseases, and which was to be explained by the fact that scurvy as seen now-a-days was not severe enough to produce retinal hemorrhages; and third, the dilatation of the heart, this being the only reported example of this condition in scurvy. It occurs in other anemic diseases, and why not here?

An interesting discussion followed, on the reporting of these three anomalous cases of scurvy; after which the society adjourned.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 17th, 1883. DR. GREGORY in the Chair.

Dr. Nelson read a paper entitled: "Milk for Babes."

Dr. Prewitt.—Mr. President, I am satisfied that the greater interest the medical profession takes in this matter, and the stronger efforts it makes to secure good milk, the more benefit it will be to the public; and it will certainly stimulate the milkmen to furnish a better quality of milk whenever they become cognizant of the fact that the medical men are disposed to look into it. The doctor has incidentally alluded to butter, and it certainly is a singular thing that there should be such a vast amount of bad butter furnished in St. Louis. I frequently go into one of the establishments dealing in butter, and among the hundreds of tubs of butter which they have stored there, it is a difficult matter to find one that is fit to eat. It may be that this climate is unfavorable for the making of good butter; that good butter cannot be made here with profit; but the fault is in the utterly careless way in which it is made. The people who make the butter don't know how to make it, or they are utterly indifferent as to the quality that is made. Certainly there are vast quantities of butter brought here, and made here, that is unfit to eat.

Dr. Gregory.—I am told by mothers that their children thrive better on condensed milk than on what is termed cow's milk. It is said that Swiss milk is vastly superior to any of the other brands of condensed milk sold. There are a great many brands of condensed milk, and there must be a difference in the value of these several milks.

Dr. Baumgarten.—A good many people keep one or two or three cows, and sell milk to persons who are nourishing a young child under the name of one cow's milk. I have found in practice that this is the most abominable supply of milk sold. I believe those who nourish a young child with cow's milk are very much safer in obtaining their milk from a dairy where the milk of many cows is mixed, because they are more likely to get among a number of cows that which is good and healthy.

Dr. Todd.—The gentlemen may recollect that the Humane Society started in the milk business pretty actively; and I must say that I have a decided objection to using milk from these swill dairies after what I saw. I remember seeing numbers of low sheds, utterly without ventilation, with low ceilings thickly covered with the cobwebs of ages. I don't believe the dairymen ever remove the filth from the floor from the time the shed was built and the cows put in, except when they were required to wade too deep to get at the cattle. In some of these places the animals were so crowded that they couldn't lie down with comfort, and they must have slept standing; some cows had great sores on their buttocks, where they had either rubbed against something, or were so placed that they couldn't lie down except upon the one sore place. They were miserable thin cows, and it looked as if the reason the cows were so crowded was because the owners feared that if they lay down they couldn't be gotten up. That is not an overdrawn statement of a great many city dairies. The Humane Society accomplished the conviction of the first dairyman who was convicted in St. Louis, and the New York Herald took it up and published it as *the* mode of suppressing swill dairies. No Dairyman's Protective Association is going to effect any reform. It will have to be done by a volunteer society, and it requires personal effort and a great deal of courage.

Dr. Prewitt.—I have used condensed milk for my own chil-

dren, and I have always used the Eagle brand or Swiss milk; and whenever I have been appealed to in regard to bringing up children where the mother couldn't furnish an adequate supply of milk, I have told them that they should, if possible, get good milk from one cow; but if, for any reason, this was not obtainable, that they should get the condensed milk as it was preferable to the milk to be had from ordinary dairymen. They will swear that they don't feed swill, and yet you can see the wagons of swill going out in a train every evening to these very men who declare they don't use it.

Dr. Baumgarten.—Many people lay a great deal of stress upon the point that the milk is fresh from the cow. Very many object to boiled milk and use raw milk, on the ground that boiled milk constipates. No matter whether it does or not, I think there is very great safety in using it, and I think we should counsel all our patients to boil the milk before using it, and that it would be well to have the physician pay attention to that point and see that the milk is boiled before being used. I mean, of course, where the milk is supplied from dairies or from any unknown source. It will, of course, obviate a great deal of the danger of infection that might be carried in the milk.

Dr. Henske.—I have experimented a little in the use of different kinds of milk. I have treated a great many babies who had to be raised away from the breast, and I have used almost all kinds of milk. I have tried milk from different dairies; I have tried milk from cows kept at St. Ann's Asylum; I have tried milk boiled and not boiled; and I have never succeeded in keeping a child more than two weeks on cow's milk without producing obstinate vomiting. My experience has been better with condensed milk, and it rarely produces vomiting. The Sisters tell me that their experience has been that condensed milk is the only milk that the children can be kept on for any length of time. I have seen it tried in more than a thousand infants.

Dr. Gehrung.—I remember an objection that has been raised against condensed milk, which I have found to hold true more or less; that is that children who have been nursed a long time on condensed milk, if they happen to get sick, sink very rapidly, and seem to be almost irrecoverably lost. That was my experience. The quantity of sugar that the milk contains cer-

tainly fattens the children up very nicely; but if any accident occurs, the very reverse seems to take place and there seems to be almost no recovery for the child.

Dr. Kingsley.—My observation in regard to feeding children with milk, the condensed milk or cows' milk, has been that sometimes the cows' milk is used with better effect than the condensed milk and sometimes the contrary. A change from one kind of food to another, when one disagrees, I think has been of great benefit. One child may be fed on one kind of milk, and another on another, and both of them thrive. I agree with Dr. Baumgarten in regard to the use of one cow's milk. I believe that is a popular fallacy. Cows' milk coagulates in large, rather hard flakes, whereas human milk doesn't coagulate in that way. Sometimes, if you mix a little rice water, or a little starch water with the milk you prevent the coagulation; it acts beneficially by separating the particles of casein and permitting the process of digestion to take place.

One thing that attention should be called to is the manner of feeding children. You will find vast numbers of mothers feeding their children with a nursing bottle, through a rubber tube. The inside of this tube is never properly cleaned, and on examination you will often recognize at once that odor characteristic of decomposition. By this means the germs of disease are no doubt frequently taken into the stomach of the child. There is but one way I think to feed a child artificially. Put the milk into a bottle, a common, ordinary six-ounce bottle, just barely a sufficient amount of food each time for one feeding; over the neck of this bottle should be stretched a rubber nipple simply. As soon as the child has emptied the bottle of its contents, or taken as much nourishment as it requires, the bottle should be immediately washed as well as the nipple, and placed in cold water until it is necessary to use it again. It is not necessary to feed even the youngest child oftener than once every two hours, and an older one once in three or four hours. It is customary with a good many mothers to place the bottle on the bed and the nipple in the child's mouth and allow it to remain there for hours at a time, decomposition frequently taking place in the bottle.

Dr. Scott.—In the care of children there is nothing so bad as the nursing bottle with a little tube running through the center

of the cork and down to the bottom. It has been a source of disease, I am satisfied, in a great many cases. A child should never be fed with a spoon, because it thus loses some of the most important secretions of the salivary glands, and the various glands of the mouth which assist digestion. We should use an ordinary four- or six-ounce bottle with a black rubber nipple stretched over it. The white rubber invariably makes the child's mouth sore. In order to give the rubber the consistency of the mother's nipple, I have a piece of sponge put in the end of it, and the child nurses with it much more readily than without it. This sponge is taken out every time the child nurses; and I do not allow my little patient to be fed with the same milk the second time. I instruct the mother to give the child as much milk as it will take, and if there is any residue left, it must be poured out and the bottle cleansed. It is always best to clean the bottle with a little sand or fine gravel. Put a teaspoonful of nice clean sand or gravel in the bottle, and after shaking it up thoroughly rinse the bottle out and leave it to dry. Sometimes patients use shot for that purpose, but gravel cleans the bottle better and nicer than anything else I know of. I never allow the milk to be heated in the bottle; it must be heated in a vessel and poured into the bottle. Sometimes the mother will give the child milk and let the little fellow nurse with it as much as he will, and then set it in a vessel of hot water and give it to him a second time. This I think is decidedly wrong. It produces an acidity of the milk which is certain to react upon the child's bowels. It has been suggested by some one that lime-water should be used, but the lime-water of the shops amounts to nothing. If you want to give the child an antacid, give bismuth or soda and not lime-water. I prefer cows' milk to anything else that I can get; and I heartily agree with Dr. Baumgarten in saying that the milk we get from two, three or more cows is better than that which is usually sold to our patrons as milk from one cow.

Dr. Kingsley.—Recently some experiments have been tried at some foundling asylum, just where I have forgotten, in which they have used asses' milk. The children were allowed to draw the milk directly from the ass's teat, and where this was done a marked improvement was noticed in the children. Children who were formerly expected to die recovered, and

there was a very marked improvement. It is stated that the death rate has been very materially reduced by allowing the child to draw the milk from the ass.

Dr. Gregory.—That was at the Eugénie Hospital in Paris.

Dr. Nelson.—It was entirely by accident that my mind was directed to this subject as one that should be presented to this society, and as I went on with my investigations I became very much interested in it indeed. I believe that it is a matter of very considerable importance to the citizens of St. Louis, to the welfare of the citizens of the city, and of the children especially, that the milkmen of the city and the milk companies should be perfectly reliable; and that we, as physicians, should interest ourselves to know what the sources of supply to our patients and patrons are. I believe that we can do a great deal of good to our patients, and that it is a duty we owe them to put them on their guard; put them in the way of finding out for themselves if we don't choose to give them direct advice in regard to particular instances. In regard to the subject of butter manufacturing, I think that there are good reasons why it is not at all probable that butter making will be a very large interest in this section of the country. The fact that we have almost no springs of cool, clear water in this part of the country is one very good reason why it is a difficult matter to manufacture the best quality of butter; and I don't think the time ever will come when the prairie states, at least the central prairie states, will be able to compete with those farther north, where the water is clear and where there are cool, natural springs to supply the farms of the different dairymen.

Dr. Scott.—I am a Missourian and am proud of my state; and the remark of the doctor that we can't make butter in this state because we lack good, pure spring water is a mistake. The section which I come from is the best watered country that I ever saw; there are pure, clear springs of water everywhere. That is in southeast Missouri. This is in the region of the Ozark mountains. They are starting some butter and cheese manufactories in that section of the country. One of the largest springs on the continent is down in southeast Missouri. It turns a grist mill, two forges, a large trip hammer, and the water is beautifully cool two hundred yards from the

spring. It is the most delightfully cool water I ever drank in my life.

We are often asked by our patients, what to do to increase the flow of milk. We know that it is quite an idea among our patients that drinking beer and milk, especially beer, increases the flow of the milk. We find many of our lady patients drinking beer to increase the flow of the milk. I would like to ask the gentlemen who have had experience in this matter what is the best remedy we can give mothers to increase the flow of milk?

Dr. Kingsley.—Milk.

Dr. Gregory.—I think southwest Missouri is as well supplied with springs as any country in the world. I have been in that country myself. The water is abundant, clear, and cool; and, in fact, everything in the world that can contribute to the health of the cattle is there. I don't know where any better can be found. I think in that respect Missouri can compete with any state.

Dr. Prewitt.—The central portion is well supplied, and also the extreme northern border. I have seen a stream that was ten inches in diameter coming from a hillside.

Dr. Baumgarten.—I think Dr. Nelson qualified his remark by speaking of prairie country. I think that is true. I think all the condensed milks have sugar added; that is to say, some solid substance has to be added. There is one brand of the Swiss condensed milk in which cane sugar is not used; but milk sugar is used; of course that makes it vastly more expensive, but it is much more healthy for a young child. It makes a very material difference whether the sugar used in the condensed milk is cane sugar or the sugar of milk. The milk sugar is much better. It is easily assimilated and digested; it is the natural food of the child, but it is very expensive.

Dr. Leete.—I am very glad that Dr. Nelson brought up the subject of milk to-night, because it is a more important one than the majority of the users of milk apparently consider. People are apparently contented to take what is offered to them, not asking any questions about the source of the supply. I suppose everyone present has seen enough of the so called dairies, whether upon a large or small scale, to convince him that it is next to an impossibility for a healthy cow, even though

healthy when put in, to remain healthy for any considerable length of time. The conditions of the animal have been very radically changed. I mean the conditions as to air and exercise, food and variety of food, and the method of getting out; all these have been changed. The cow is by nature an easy going brute, but one that is constantly moving about while feeding, getting air, exercise after a gentle way, and, as you are aware, in order to get on well it should not be worried. So that it is unnecessary to say that the place of all others to keep cows, in order to have it healthy and have it properly fed so that it may give wholesome milk and of the best quality, is in the country, where they will have a sufficiently wide range for all the exercise that they require and for as much green food as is necessary to their health, and where in the winter season they can obtain bright, sweet, sound food, whether hay or the leaves of corn and of the different grains. I have seen a good deal of the small dairies, and the larger ones in the city, and I have never seen but one dairy that was properly kept. I am very well satisfied that the physicians of this city can benefit the public very much by encouraging honest milk companies in supplying good milk; I mean such companies as will make sure of getting their milk from the country, far enough away from the city and distilleries, so that the cows will not be fed on swill, and will be well cared for and have wholesome food at all times.

THE FIRST CONGRESSIONAL DISTRICT OF MISSOURI MEDICAL SOCIETY.

The regular meeting of the First Congressional District of Missouri Medical Society was held in Macon, Mo., April 10, 1883, the regular officers, Drs. A. B. Miller, President, and Jno. Moran, Secretary, being in their respective places. There were thirty-two associate members in attendance; and six physicians from outside the limits of this district were made members by invitation. A number of other physicians attended the sessions of the society, but did not become members.

Several patients were presented by the physicians in charge; and the cases were examined and discussed by the society.

J. H. Petty presented a case of eczema, and another case of cataract, both from Jacksonville, Mo.

These patients were examined and cases discussed by the society.

Dr. Yancy presented a case of necrosis of the humerus, upon which W. A. Byrd, of Quincy, operated before the association.

Dr. A. B. Miller presented a case of otitis media, with abscess of the mastoid bone.

Dr. D. H. Shields, of Hannibal, presented to the society a condensed account of the recent legislation in this state establishing a State Board of Health, and regulating the practice of medicine and surgery. A resolution was adopted commending the action of the legislature as an important step in the right direction.

Papers were presented as follows:

A paper on "Vis Medicatrix Naturæ," by G. M. Dewey, Keytesville, Mo.

A paper, "County Medical Societies and Their Usefulness," John Moran.

A paper, "Bacteria and Bacilli," G. W. Wilson.

A paper, "The Curette in the Treatment of Abortion," J. D. Smith, Shelbyville.

A paper, "A Case of Membranous Croup and its Successful Treatment," E. C. Davis.

Quite an animated discussion followed upon each of these papers, in which nearly all the members took a more or less active part. Other papers had been prepared, but were deferred by reason of lack of time to read and discuss them. Delegates to the State Medical Association, which meets at Jefferson City the 16th inst., were appointed from each county in the district.

All the sessions of this meeting were well attended, and all seemed both interested and profited.

The next meeting of the society will be held in Hannibal, Mo., November 6, 1883.

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.¹

The fifth annual session of the Sanitary Council of the Mississippi Valley was held in the hall of the House of Representatives in Jackson, Miss., April 3rd and 4th. Forty-five delegates, representing the states of Arkansas, Illinois, Indiana, Iowa, Louisiana, Missouri, Ohio, Kentucky, Tennessee, Wisconsin, Mississippi, were enrolled as members of the council.

An address of welcome was delivered by Gov. Robert Lowry.

The most important part of the work of the meeting is embodied in the following resolutions, which were reported by the Business Committee, and fully discussed by the members of the Association :

Whereas it is the sense of the Sanitary Council of the Mississippi Valley that the National Board of Health is the body which possesses the confidence of the States of the Valley ; it is, therefore, recommended that the first committee be appointed by the President of this Council to petition the President of the United States to place the \$100,000 epidemic fund in the hands of the National Board of Health for disbursement, in case its use is demanded.

Resolved, That in case the National Board of Health is deprived of the power of making inspections of persons and freight when demanded by the local Board of Health, certificates issued under the supervision of a representative or representatives of the Sanitary Council of the Mississippi Valley shall be accepted as valid by the boards of health of the Mississippi Valley, provided that said inspections be carried on under the rules and regulations heretofore prescribed by the National Board of Health.

Resolved, That the Sanitary Council recommend that the States of the Valley make voluntary contributions, to be expended under the direction of the executive committee of this Council, to continue river and rail inspections in the event that no funds are placed in the hands of the National Board of Health for this purpose.

Resolved, That the Sanitary Council recommend for the guidance of the health organizations of this Valley, the system of inspection and isolation, disinfection and quarantine heretofore adopted by the National Board of Health.

(1) For notes in regard to this meeting we are indebted to Dr. R. Luedeking, the efficient clerk of the Board of Health of St. Louis, who, with Dr. Spiegelhalter of the Board of Health, and Dr. Outten of the M. P. & S. W. R. R. system, constituted the representatives of our State in the council.

Resolved That the communication of the Louisiana State Board of Health be received in the spirit in which it is tendered, and that their co-operation with the Sanitary Council of the Mississippi Valley in protecting the Valley from epidemic diseases, will be cordially approved and acknowledged.

The committee recommended in the foregoing resolutions was appointed by the President, who named one delegate from each of the states represented. The form of the petition as prepared and signed by the committee is as follows :

We, the committee appointed, humbly but sincerely petition that the fund of \$100,000, in the event of an outbreak of yellow fever or other epidemic diseases on the coast of our country, be placed at the disposal of the National Board of Health. That body can give confidence to the people of the valley as to the necessary precautions and safe-guards yearly demanded by the exposure of our Southern ports to the ravages of yellow fever; their inspection stations and the mode their officers have adopted in isolation and disinfection, establishing quarantine only when emergency or occasion demands it, has earned for the National Board a degree of confidence that of itself alone is worth millions of dollars to the commerce of the country. To supplant this body or withhold from them the necessary funds to maintain inspection stations at all exposed points will, in our humble judgment, cause the wheels of commerce to clog, bring about a feeling of distrust on the first alarm, be it true or false, and cause recourse to the shot-gun policy of quarantine, which can but prove destructive to the commercial interests of the Mississippi Valley, which in a measure affects the entire Union. With these views submitted with full faith and appreciation of the solicitude you must feel for the welfare of the public health, we hereby subscribe ourselves your most humble petitioners.

The next session of the Council is to be held March 19, 1884; the place will be determined by the executive committee. The following officers were elected :

The President is Dr. Wirt Johnston, Secretary of the Mississippi State Board of Health. The Vice-President is D. P. Hadden, President of the Taxing District of Shelby County (City of Memphis), Tenn. The Secretary was re-elected, Dr. Jno. H. Rauch, of the Illinois State Board of Health.

THE MONTHLY INDEX, a journal devoted to giving an account of new books published, has been discontinued.

FOREIGN CORRESPONDENCE.

FICKLE SPRING—THE ELASTIC BANDAGE IN KNEE-TROUBLES—HERPES IRIS—PRIZES FOR ORIGINAL SANITARY RESEARCH—SEWAGE—UNION OF EXAMINING BOARDS—RECTAL TROUBLES—TRAUMATIC TETANUS RECOVERED.

MR. EDITOR:—Jocund spring, that in my last I wrote was upon us here, proved to be a fickle jade. March came in and has continued, true to its proverbial severity, with stormy east winds, and, following the unusually mild weather of January and February, has proved quite fatal to the aged. The week ending March 17th registered in London alone 87 deaths of persons over 80 years of age, 11 of whom were 90 odd.

If I were the authority in power here I should postpone till later in the season two events that are deserving of milder, more pleasant weather than was experienced this year; notably the annual inter-university boat race, and the Easter or bank Monday holiday. Caught shivering, with thousands of others, in a blinding snow storm on both occasions, first on the banks of the Thames at Mortlake, and second on Hampstead Heath, I thought how readily that which was the occasion of much suffering to the masses could be made a time of great happiness. Better natured crowds, more jollity, less real ruffianism among such packed masses I never before witnessed—certainly deserving of more propitious weather.

Though “colds” prevail to a greater or less extent, yet, in my observation, catarrh of the head—nasal—is not common. One reason of this may be that the people are not hot-housed as in the states, dependence for warmth being placed on open fires, in small grates, something to be seen, not felt. This custom inures the people to cold, and renders them less susceptible to weather changes. Of course thousands of the poor are greatly exposed and poorly fed, and as a consequence suffer

from sickness. A foolish fashion still prevails with many mothers of dressing their little children in short socks, leaving the knees and more or less of the thighs and legs bare. Exposed to cutting east winds, with skin blue and mottled, doubtless injurious physical results follow. And may it not be that local knee-joint trouble, of which there is much here, results from such exposure?

Speaking of the knee reminds me that at a recent meeting of Hunterian Society a speaker advocated the Martin's bandage to cause absorption of the effused fluid in the knee-joint, which, as I suggested in my last letter, Mr. Hutchinson believes to be the obstacle to contact and thus to union of the fragments in fractured patella. In regard to the excellent results claimed by Mr. H., in his treatment of this lesion, his opinion is not shared by some of his hospital colleagues, who believe that he mistakes close fibrous union (which in time may lengthen), for bony.

I am pleased to note that the use of Martin's bandage is becoming more general here. It has found warm advocates as a therapeutic agent in varicose veins and ulcers, in sprains of ankle and wrist, in synovitis both acute and chronic of the knee, and even in pulpy degeneration of this joint. At the society meeting referred to I was enabled to publicly indorse the good opinion formed of it, though not to the extreme advocated by our countryman, its author.

At the same society was exhibited a case, in a young man, of herpes iris on the hands, wrists and arms. There had been erythema, and elevated black or dark colored rings, due to hemorrhage in the skin, which sloughed out, leaving circular, ring-like ulcers. There had been no vesication. Linear as well as circular expressions of the same condition were present.

A late action on the part of one of the city guilds or companies is of professional interest and worthy of commendation. The Grocers' Company, some seven hundred years old, and very wealthy, has offered prizes amounting to \$3,750 annually, and \$5,000 additionally every four years, for original research in "sanitary science" or the "causes of important diseases." The annual prizes are confined to British subjects, but the four years prize is open to universal competition. Whether or not the unwilling truths of preventive medicine can thus be

forced or compelled to divulge remains to be seen. But with such men as John Simon, Tyndall, Burdon Sanderson and Geo. Buchanan as a committee to decide on the comparative merits of the competitors, we may be assured that justice will be done.

This city company or guild is one of many that give largely to the support of hospitals, dispensaries and other charities of the metropolis. Their aggregate wealth is so great that, a while back, there was talk of Parliament taking a controlling hand in their affairs, but the whisperings of such interference were silenced by their instituting a system of charitable giving, which, under the circumstances, they can well afford to do.

The death-rate of London is comparatively small, when we consider its enormous size, its crowded localities, its much poverty, and its damp climate. But the streets are well paved and kept commendably clean (a contrast to St. Louis), and the sewage is rapidly disposed of by huge drains which empty into the Thames, fourteen miles below the city, at high water, that it may be carried out to sea by the ebb-tide. Complaints, however have been made that the more solid parts of the sewage are not thus carried out, but form thick deposits on the bottom of the river, which at flood tide are carried up the river almost to the heart of the city, thus contaminating the river and atmosphere. Fifteen months since, the Queen appointed a commission to ascertain if any evils resulted therefrom, and in that case to suggest a remedy. Meetings have since been held twice weekly, and evidence adduced to prove the pollution of the water, the accumulation of foul mud, damage to the fishing interests, and injury to health. Among the witnesses were scientific men like Dr. Lionel Beale, microscopist, and Mr. Tuson, chemist. The case for the complainants is now virtually completed, and the reply of the Board of Works is to be heard.

If necessary the sewage could be carried still further down the river. This however would be attended with great expense, as, to get sufficient fall, it would have to be pumped up or raised to a higher elevation. It is to be hoped that applied chemistry will come to the fore, and dispose of, possibly utilize this solid sewage for agricultural purposes.

An important matter has been consummated in the union of the Examining Boards of the Colleges of Surgeons and Physicians. Heretofore they have been separate and distinct, each granting its own degree; but now the single examination from a common committee will entitle to the diploma of one body and the license of the other. And thus we see the barrier line so sharply drawn in the past between the Surgeon and Physician, the Mr. and the Dr., being broken down. This is as it should be. The medical man sent forth responsible for human life, entrusted with its guardianship, should be informed and grounded in the whole field, and ready to do the best, whatever the occasion. In the large city the line of practice may be drawn between medicine and surgery if it be deemed best, but the cross-road doctor has no choice, he must and ought to be Jack of all. In any event the instruction should embrace the whole field. There is a medical bill now pending in Parliament looking to an improvement in this and other particulars, and which it is hoped, if passed, will reform some of the existing evils of medical education and practice in this nation.

Among the many special charitable institutions here, none is doing a more noble work than St. Mark's Hospital for fistula, piles and other diseases of the rectum. Established in 1835, it has, up to the present time, afforded relief to 49,000 cases, both as in- and out-patients. During the past year there were 252 ins and 2,658 outs. The institution owns a fine property, and is supported wholly by voluntary contributions. During the twelve months just passed \$10,000 were received from various sources in aid of its charitable work. In the original address, or appeal for assistance, occurs this sentence: "While those descriptions of suffering which are exposed to observation demand the sympathy of the humane, diseases which secretly undermine the constitution, and involve distress too appalling to be contemplated, pass without regard." Proper reference is here made to the hidden affections of the rectum. And again: "This institution claims the title to distinguished usefulness, in respect to its practice being open to the medical profession, by which means the treatment adopted is submitted to the test of experience, while opportunities are afforded of studying the diseases in all their baneful varieties."

Medical men and students have largely availed themselves of this privilege. I have had the pleasure of witnessing the practice of several of its surgeons: Messrs. Allingham, Gowl-land and Goodsall, who hold two public clinics weekly—"operating days."

The patient lies on his side on a high iron-framed table, with a drawer in the center of one side under the upper ledge, convenient for the instruments. The anesthetic employed is ether, preceded by nitrous oxide gas, the one face-piece or inhaler doing for both, being connected by rubber tube to the gas cylinder placed on the floor, with a valve conveniently worked with the foot, thus leaving the hands of the administrator free. By this method much time is saved, only two minutes being necessary to fit the patient for operation; much less ether is required, thus the disagreeable after effects are avoided—and, too, there is a real saving in the expense. For internal piles the usual procedure is to seize the tumor well at its base with a four-tined tenaculum, draw it down, carry it to the opposite side, and divide freely the mucous membrane at its base in the crease or fold between the skin and tumor (only on one side), cutting upwards with strong spring scissors. Silk braid is carried to the bottom of this cut and around base of tumor, and firmly tied. The superfluous mass is cut off, not immediately against the ligature. In case of several piles, the lowest, i. e., nearest the couch, is first removed, thus the blood does not interfere with the sight. Redundant folds of mucous membrane are clipped off. Dry cotton is stuffed into the bowel and padded externally, and confined with a T bandage. Mr. Allingham's method, however, is exceptional to the above, he having now employed in three hundred cases the clamp—a cut with description and use of which will be furnished the *COURIER* for its next issue. Fissures are dilated and cut. Fistulæ are laid open freely. An exception was made in the case of a very extensive horseshoe fistula, which was cut into from the outside only, to its very bottom and by several incisions, stuffed with cotton to granulate from below. Had it been laid open freely into the bowel, incontinence would probably have resulted. Refusal to operate in phthi-sical cases is frequently made, not from fear of aggravating the local lung trouble, but because the cuts, on account of the impaired vitality, do not heal.

But I doubtless weary you, and must close, referring only to a meeting of the Clinical Society, held last evening, at which Mr. Marsh related a case of traumatic tetanus, recovered, in a boy with foot injury. On the supervention of the spasms, Syme's amputation was performed, which diminished their severity; but they continued, in all, forty-two days. Chloral, potassic bromide and morphia were used, reliance being placed especially on the latter, half-grain hypodermic injections of which were made. Mr. Barwell also gave a recovered case, occurring in a man who stepped on a carpet needle, half of which was buried in his foot and lost. Several weeks following tetanus supervened, and Mr. B. cut down upon a little tumor two inches above the inner malleolus, just back of the tibia, and removed the needle. The spasms soon ceased.

A. J. STEELE, M. D.

SIR THOMAS WATSON left an estate of which the personalty alone amounts to more than \$800,000. The bulk of this is divided between his two children.

THE MEDICAL DEPARTMENT OF THE SYRIAN PROTESTANT COLLEGE in Beirut, Syria, is in need of a Professor of Anatomy, Physiology and Histology. Instruction is to be given in the English language. The applicant should be a graduate of a medical college, of high standing, and a man of earnest missionary spirit, who would enter upon the work for the sake of promoting the spiritual welfare of his pupils, and aiding in the advancement of the Church of Christ in Syria. The Rev. Dr. H. H. Jessup, now of 23 Centre street, New York, may be addressed for particulars. The position is one in which the right man will find a very wide field of influence and usefulness. He will find his colleagues, our beloved friend Dr. Post and others, men of ability, who with their families form a delightful Christian society in Beirut. Beirut has, as all travellers know, a very beautiful situation on the Mediterranean; it has more of enterprise and of commercial activity than most Oriental cities, and is in many respects the most attractive city in all the East.—*N. Y. Evangelist.*

COMMUNICATIONS.

AUMAN'S HILL, N. C.

EDITORS COURIER:—I briefly invite the attention of my brother co-laborers to the subjoined preparations of iron, which I have been using constantly and with entire satisfaction for at least fourteen years. Every experienced practitioner knows that our best iron compounds are those having the *red oxide* as their base; and especially is this true when our aim is the restoration of impoverished blood. This is the indication in quite a preponderance of the cases calling for iron.

In this very chemical, particularly, consists the efficacy of most chalybeate mineral waters, as well as the advantage of the oxysulphates over many others. The first formula is no therapeutical novelty, but was invented and successfully used by Sylvester sixty years ago, and is said to have been in constant use ever since by many English practitioners:

R.—Fërri sulphatis crystal.,	-	-	3ijss
Acidi nitrici,	-	-	3iij
Aquæ puræ,	-	-	3iiss

Stir well the iron and acid by constant rubbing in a mortar for at least twenty minutes, gradually add the water, and filter through white filtering paper. The result is a clear limpid fluid, which may be given in doses of from five to fifteen drops, twice daily, in a little water or infusion of quassia. It is easily prepared and will be found, for general use, preferable to the mineral tincture of the shops. It harmonizes chemically with, and increases the solubility of quinine, sulphate of magnesia, etc., and may be relied on as one of the very best restoratives for debility and torpor of the liver, following successfully treated cases of hepatitis, or miasmatic fevers, in which the biliary organs have suffered. For chronic chills, the following formula will be found very valuable to any practitioner engaged in a malarious district:

R.—Quiniæ sulph.,	-	-	-	-	grs. xxx
Liq. ferri oxysulph.,	-	-	-	-	ʒi
Liq. potas. arsenitis,	-	-	-	-	ʒi
Aquæ,	-	-	-	-	ʒij

M. S. A teaspoonful thrice daily, after meals, occasionally adding a small dose of sulphate of magnesia to obviate costiveness. The iron and arsenic may be varied to meet the leading indication.

F. E. ASBURY, M. D.

NEW YORK, April 9, 1883.

EDITOR COURIER:—Believing inebriety to be a disease, a true neurosis, the more prominent symptoms of which are great nervous irritability, or restlessness, unnatural sensations, an uncontrollable desire for alcoholic stimulants, and a disposition to frequent fits of intoxication; and believing that a departure from a healthy structure of the nervous apparatus exists, as in mental disorder; that in fact it is the abnormal condition of the entire nervous system demanding stimulant, that is essentially the disease; and being desirous of obtaining accurate and trustworthy information from the members of the profession, relating to the phenomena of inebriety as controlled by the cosmical influences, such as electrical phenomena, lunar attractions, velocities and directions of winds, geological formations, elevations above the sea level, the approach of storms, barometrical changes and temperatures, I would respectfully request any members of the profession who may have in their possession facts of interest bearing on these points, to kindly communicate them to me with permission to use the same for the benefit of the profession in my studies in this important field of mental pathology. My studies and investigation thus far have led me to believe that inebriety and dipsomania are governed by the same laws which govern mental diseases generally; and I desire to make such investigations as exhaustive as possible that the result may be conclusive and scientific when presented to the profession. To this end, believing that we should study this subject as physiologists and pathologists, and not as moralists or reformers, I ask your kind co-operation in my endeavor toward the scientific elucidation of these obscure points, relating to the disease of inebriety.

I would also ask: 1. What diatheses and cachexias you may have noticed in the course of your practice to be most frequently associated with inebriety?

2. In what cases, if any, have you noticed reflex excitability as the cause of inebriety?

3. What previous diseases, if any, have you noticed which may have operated in the causation of inebriety?

4. Have you observed exhaustive intellectual and physical exertion, or mental strain and anxiety, to operate as a cause? and if so will you kindly give outline of such cases?

5. Have you noticed blows on the head, sunstroke, or spinal concussion as a cause of inebriety?

6. Have you knowledge of over stimulation of the brain in school children, followed by inebriety at puberty, or in after life, the inebriety being separated by a distinctly long interval of time from the too intense stimulation of the brain which caused it?

7. Have you known cases of inebriety in which you could refer to the occurrence of puberty as a cause, or, in women, to the menopause?

8. Have you known any particular surroundings, business, or geographical district, to influence the production of inebriety?

9. Have you observed when inebriety is fully developed, the desire for drink is not appeased by any moderate quantity? that the desire is *intense*, and satisfied only by complete intoxication?

10. Have you ever known an inebriate whose nerve tissue you considered to be sound and free from defect, whether he was a steady or paroxysmal drinker?

11. What influence have you observed normal menstruation to exert upon females addicted to inebriety? Has the tendency to drink become aggravated in intensity?

12. Have you heard or known of cases of inebriety who during the interval did not drink, but who experienced the accession of the disease with each return of the catamenia?

13. What per cent. of the higher and middle classes exhibit the disease of inebriety as compared with the same number of the lower or laboring classes?

14. In your experience has excessive drinking by producing disturbance of the brain induced insanity?

15. In the disease of inebriety, when fully developed, have you known the effect of moral or reformatory treatment to produce an amelioration of the disease? It will be seen that our desire is to elicit precise and definite opinions on points about which there is at present much confusion. Drinking is the pathognomonic symptom of the *disease* inebriety. It is the *insatiate desire to drink* that constitutes the real morbid condition. Finally, we would ask:

16. Do not the accumulated results of your experience indicate decisively that the propensity for drink in this disease when under the influence of exciting causes, arouses the appetite, overcomes the will, blunts the moral sensibilities, and makes every thing else subservient to its demands? That the will power of the individual is overwhelmed by the violence of the morbid impulse or propensity?

17. If this morbid craving for stimulants is clearly traceable to a brain condition, what do you consider the mental responsibility of an inebriate? Please address

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NOTES AND ITEMS.

THE ILLINOIS STATE BOARD OF HEALTH at the regular meeting in Chicago, April 12, resolved, "That the Indiana Eclectic Medical College of Indianapolis, Indiana, and the Joplin Medical College of Joplin, Missouri, having given assurances of their intention and determination to fully carry out and abide by all the requirements considered by the Illinois State Board of Health as essential to the good standing of a medical college, the diplomas of said colleges will be recognized in the future by this Board, whenever and so long as it shall appear that their methods and practices entitle them to be classed among 'medical institutions in good standing;'" also, "That, under the recent decision of the Supreme Court of the State of

New York, declaring the charter of the United States Medical College, of New York, null and void, this Board can no longer legally recognize the diplomas of that institution.

Secretary Rauch reported two applications for the hundred-dollars-a-month license to itinerants, both from graduates of reputable medical schools. His action in refusing a license was approved by the Board.

The non-graduate practitioners in the State of Illinois now number only about 650, as compared with 3,800 at the time when the law regulating the practice of medicine went into effect.

The Board of Health approved also the recommendation of the Secretary, that the various medical colleges be furnished with copies of the schedule of minimum requirements, and be requested to state formally their action thereon; also that the affidavit required of applicants for certificates to practice be so modified as to include a statement whether the requirements of their individual colleges and of the Board, in regard to medical education, have been fully complied with.

Irregularity in this matter is attracting the attention of the Illinois Board of Health at the present time, and charges involving five different colleges whose diplomas have heretofore been recognized by the Board are now undergoing investigation.

It is probable that at an early day some definite action will be taken by the Board of Health, with regard to this matter of colleges granting diplomas to unqualified and incompetent persons, or in open violation of the requirements of the institution, and that such act will be declared to be unprofessional and dishonorable conduct on the part of those concerned in it.

The question was raised by Dr. Clark as to the feasibility of an effort to secure one common Examining Board on Preliminary Education for the six medical colleges in Chicago. The suggestion was unanimously approved by the Board, and it remains to be seen whether any definite result will be obtained.

Eighteen candidates presented themselves for examination, of whom five withdrew before completing the answers to any of the sets of questions. Of the remaining thirteen not a single one was found to have attained the required minimum of 80 per cent of correct answers.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS will hold the next annual meeting in Cleveland, Ohio, on June 5th and 6th, 1883, the sessions being held at 7:15 P. M., in the interval between the meetings of the Sections of the American Medical Association and the social entertainments of the evening.

The order of exercises for Tuesday evening will include, after roll call and reading of minutes of last meeting, an address by the President, Dr. N. S. Davis, of Chicago, on "The Present Status and Tendencies of the Medical Profession and Medical Journalism." A free discussion on this subject is invited, and will be open not only to members of the association but to all physicians.

On Wednesday evening, Dr. H. O. Marcy, of Boston, will give an address on "Journalism Devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments." Drs. J. A. Ochterlony, of Louisville, and Alex. J. Stone, of St. Paul, Minn., are also announced to read papers on that evening.

The Secretary, Dr. J. V. Shoemaker, of Philadelphia, was authorized at the St. Paul meeting last year to make these arrangements for the coming meeting, and to give a special invitation, not only to all members of the association and all who are engaged in medical journalism, but to all members of the profession and friends attending the American Medical Association, to attend the meetings of this association also. There is promise of an interesting and profitable meeting, and we hope a large number will be present and identify themselves with the association.

AN INTERNATIONAL CONGRESS OF COLONIAL PHYSICIANS will be held in Amsterdam September 6, 7, 8, 1883, in connection with the International Colonial Exposition. The Committee on Organization have chosen certain subjects that are of special interest to physicians practicing within the tropics, with reference to which reports will be presented by reporters designated by the committee. These reports will form the basis of discussions. The subjects selected are the following: 1. Quarantines. 2. Special Education for Physicians for the Colonies. 3. Hygiene of Unwholesome Professions, Trades and Occupations in the Colonies. 4. On the Modifications

which certain Diseases, and especially Infectious Diseases, undergo under the Influence of Tropical Climates. 5. On Phthisis in the Colonies and Tropical Climates. 6. On the Treatment of Exotic and Tropical Diseases in Temperate Climates.

Membership fees will be ten florins (about four dollars), and will entitle the member to a copy of the Transactions of the Congress. The reporters will make a summary at the close of their reports, and this will form the basis of the discussion. Time unoccupied by the papers and discussions arranged upon the programme will be assigned to those desiring to present other papers to the Congress. All reports and papers read are to be placed at once in the hands of the Secretary, and the Committee on Publication will decide upon the publication in full or abstract or the exclusion of any paper so presented. French will be the official language at the Congress; but members may use other languages, and, when so requested, communications so made will be translated into French (in abstract).

TRANSPORTATION OF CORPSES.—The following are the rules adopted by the Illinois Board of Health.

RULE 1. The transportation of the bodies of persons who have died of small-pox, Asiatic cholera or yellow fever, is absolutely forbidden.

RULE 2. From November 15 to March 15 all other dead bodies may be transported without restriction, excepting the bodies of those who have died of diphtheria, scarlet fever, typhus or typhoid fever.

RULE 3. The bodies of those who have died of diphtheria, scarlet fever, typhus or typhoid fever, at all times, and all other bodies presented for transportation from March 15 to November 15, must be closely wrapped in a disinfectant cerecloth,¹ placed in a metallic or wooden coffin, and this enclosed in a tight wooden box.

RULE 4. Every dead body must be accompanied by a phy-

¹A "disinfectant cerecloth" (or winding sheet) consists of a stout cotton cloth, thoroughly soaked in a solution of one and a half pounds of sulphate of zinc or white vitriol, and three-quarters of a pound of common salt, in three gallons of water.

sician's certificate, showing cause of death; a certificate of inquest from the coroner, or a permit for transportation from the clerk of the Local Board of Health, if any; and a written certificate from the shipping undertaker, setting forth that the corpse has been prepared for transportation in accordance with the rules of the Illinois State Board of Health.

THE MARYLAND MEDICAL JOURNAL will be issued hereafter as a weekly instead of a semi-monthly. Each number will contain sixteen double column pages of reading matter. The size and appearance of the *Journal* will be slightly altered to conform to the requirements of a weekly.

THE TWENTY-SIXTH ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI will meet at Jefferson City, Mo., in the Hall of the House of Representatives, on Tuesday, May 15, 1883, and continue in session three days. The society will be called to order at 3 o'clock P. M.

STATE MEDICAL SOCIETY OF ARKANSAS.—The Eighth Annual Session will be held in Little Rock, on Wednesday, May 30th, and Thursday, May 31st, 1883, commencing on Wednesday at 10 A. M.

MEDICAL PRACTITIONERS in London are said to number 4,082 in a population of four millions.

OBITUARY.—Dr. Willis B. Winston died in Jefferson City on March 23rd, after an illness of some weeks duration. He was the son of the late Dr. G. B. Winston, and was born in Jefferson City in 1854. He graduated at the Missouri Medical College in 1875. After his graduation he returned to the place of his birth and established himself in practice in conjunction with his father. At different times he held the positions of City Physician, County Coroner, and for two successive terms, and up to the time of his death, was Physician and Surgeon to the Missouri State Penitentiary. Like his esteemed father before him, Dr. Willis B. Winston was an honor to his chosen calling, and had he been spared to riper years, the profession would have undoubtedly reaped the fruits of a well-balanced, progressive mind dedicated to its service.

ST. LOUIS COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

TRACHEOTOMY FOR CROUP AND DIPHTHERIA.

By H. H. MUDD, M. D.

IN both of these diseases we have difficult respiration on account of deposits in the larynx limiting motion of vocal cords, or narrowing and obstructing the opening of the rima glottidis. I make no effort to separate the two conditions, because of the difficulty of the diagnosis at the time that the obstruction exists, and because in my experience it makes but little difference in the prognosis of the case. Laryngeal obstruction, when sufficient to impede respiration, becomes an important factor in the estimation of the danger to the life of the patient, so important that I think there are but very few cases where the character of the original trouble should be estimated or considered in the treatment of so important a symptom. The propriety of tracheotomy to relieve persistent obstruction caused by a simple laryngitis with edema is unquestioned, nor would any one hesitate to operate if there was a foreign body in the larynx producing the obstruction. But there is with the majority of the profession a reluctance to

recommend and to urge upon their patients the desirability of tracheotomy for so severe and fatal a disease as diphtheria. Here sudden relief by subsidence of disease is much less apt to occur than in edema, or by the extrusion of a foreign body.

Malignant cases of diphtheria are in themselves of bad prognosis, yet some of the most malignant cases recover, others mild in their local manifestation result in speedy death. It is impossible for any one to make a definite and certain prognosis in cases of diphtheria, even the most hopeless cases sometimes recover. How then can we say of any definite case in which laryngeal obstruction has become evident, obscuring as it does the evidence of danger from constitutional exhaustion, that it is hopeless, and that there is no use in making a tracheotomy. Whenever deposits of diphtheritic or croupus membrane become so marked as to very materially impair the aeration of blood by impeding respiratory movements the trachea should be opened, no matter how desperate the apparent condition, for patients will sometimes revive when respiration has ceased, if air is freely supplied, and if revived for another effort for life, who can say that nature's wonderful resisting powers will not vanquish the disease and recovery result. There are many cases suffering from croup and diphtheria in which there is a spasmodic obstruction in the larynx, one which is often aggravated by collection of mucus in the larynx, which is more or less irregular in its manifestations. This does not evidence its presence with slow and persistent increase of respiratory effort, but comes perhaps suddenly, and is suddenly relieved by a cough or by nausea, or by a shock, such as may be induced by cold application to the neck, etc. Whenever there is a spasmodic element in the production of difficult respiration it may often be detected by watching the respiratory motions, when you will observe that the muscular effort is confined to the inspiratory motion, and that expiration is comparatively free and without effort. Spasmodic or in

termittent obstruction, however severe it may be, does not demand operative interference. Difficult respiration, even where it is constant, increasing and laborious, does not necessarily imply that the obstruction is laryngeal. We may have this rapid and imperfect respiration from nervous enervation, or from the filling up and obstruction of the bronchia by mucous effusion or plastic deposit. It is not, however, ordinarily difficult to determine whether the obstruction is in the chest, in the pharynx or in the larynx. In pharyngeal obstruction we almost always have noisy respiration, a loose rattle in the throat, which varies with the changing positions of the patient, and with the accumulation or expectoration of mucus in the pharynx. When the obstruction is in the lung, there is an absence of the dry, sharp whistling sound we get when dealing with laryngeal stenosis, and while the respiratory movements are short, hurried and imperfect, the intercostal spaces perhaps somewhat depressed, there is still an absence of that violent muscular effort that we find always present in laryngeal obstruction. The deep depression of the epigastrium, the bending in of the soft and pliable costal cartilages of the infant in laryngeal obstruction, coupled with the dry, blowing sound, is a sure indication of the site of the obstruction, and of necessity for its relief. Even where we have tracheal obstructions at a site below the larynx, we very rarely see the marked respiratory efforts that we have when the obstruction is in the larynx itself. This laryngeal stenosis may come on rapidly in croup or diphtheria, and in a few hours develop a condition that will speedily terminate in death. Whenever the respiratory effort is violent, if dependent on plastic deposits, you will find both inspiratory and expiratory effort labored. The muscular power is very much greater in the movements of inspiration than in those of expiration, and notwithstanding the obstruction is always greater during the inspiratory effort than during expiration, this difficult respiration, if long continued, results in the rarefaction

of the air of the lungs and bronchia. The intercostal spaces become depressed, the lungs imperfectly expanded, the blood-vessels of the lungs and of the mucous surface distended and the mucous surface congested, and sooner or later in every case there is an effusion from the mucous lining which produces first the coarser râles in the larger tubes, and later fills up the smaller bronchia and the intercellular spaces, cutting off completely the air from the air-cells, and death occurs from asphyxia. Nerve centers are benumbed, the demand for respiratory effort is diminished, muscular exertion becomes less, râles are heard throughout the chest, and it is impossible often to determine what part the laryngeal obstruction has played in developing the seemingly hopeless condition, or how much is dependent upon the bronchial effusion. Whenever obstruction comes as a result of deposit of membrane, either diphtheritic or croupous, it is folly to wait hoping that it may be expelled, and that thus the child may be relieved. Such a relief does occasionally come, but the expectation of this relief and the delay occasioned by it has, I believe, cost us many lives, and often places patients in the above described hopeless condition. Even after the lungs had become filled with mucus, and the child was seemingly near dead I have seen them revive after the operation and make a permanent recovery in cases of undoubted diphtheria. I do not pretend to say, nor would I be understood as believing, that every case of croup and diphtheria in which there is laryngeal obstruction demands tracheotomy; a great many of them even where this occurs will die before the obstruction becomes so marked as to demand tracheotomy; others will recover, although there may be more or less marked difficulty in respiration for days; but when the condition approaches the one described, when the intercostal spaces are depressed, the respiratory effort labored, the air in the lungs rarefied, tracheotomy is demanded and should be performed in every case, no matter how hopeless it may appear.

It is not in itself a dangerous operation. When performed before the lungs are filled with mucus and before the mucous membrane has become congested, there is, I think, but little danger of bronchitis following the operation. If the patient has been laboring long with difficult respiration, bronchial trouble is more likely to follow.

The operation is one of some difficulty, and especially so under the circumstances that usually surround the operator in these cases. Rapid and precise work is demanded, and but little time is given for it. The constant danger of delaying the opening in the trachea by a false move, an injudicious cut, unnecessary violence in tearing the parts, thus producing hemorrhage and impeding his own efforts, makes it a trying operation for the surgeon.

I find in our case book the record of one hundred and twenty-one operations made for diphtheria and croup. Twenty-two of this number have recovered. Ninety-one of these operations were made by Dr. John T. Hodgen, of which fifteen (15) recovered; the remaining thirty cases were operated upon by myself, and of this number seven recovered.

As will be observed, the statistics of cases operated upon by myself show a better percentage of recovery than those by Dr. Hodgen. This is due entirely to the fact that during later years we have had opportunity to operate upon patients at an earlier period and under more favorable circumstances than during the time when Dr. Hodgen first practiced the operation. The first fourteen (14) cases upon which he operated were fatal, but they were accomplished with little support from the profession and opposed by friends of patients, but he persisted in his efforts to save these little sufferers under very discouraging circumstances. The operation during the first ten years was almost always made as a dernier resort and under protest.

I know of no more trying position than that in which a surgeon is placed when called upon to face such a respon-

sibility as this—to make an operation upon a patient to relieve a symptom of a disease which is almost necessarily fatal; and only that unswerving devotion to duty and forgetfulness of self that characterized Dr. Hodgen could have enabled him to so consistently pursue such discouraging work, and thus help to demonstrate the utility of an operation which from its association with a disease fatal in its tendency is so bad in its results. In one of my successful cases, a child twenty months old, I turned from the child and thought it useless to make the effort, but the father, who seven years before had lost one of his children on whom I had made tracheotomy, insisted upon giving the child the chance for life that is always presented by the operation, and the trachea was opened and the child is to-day sound and well. I have never seen a child recover without operation where he (Dr. Hodgen) urged or recommended tracheotomy, and in answer to the criticism of results his unvarying reply was two or fifteen (as the case might be) lives are better than none.

In many cases we find but little need for anesthetics, for the patient's sensibilities are benumbed, and there is but little resistance made to the operation. Great care must be exercised in their use in every case. The anesthetic is essential to the relief of the patient by quieting such spasms as may be present, and assists the operator by controlling the struggles of the child, struggles which increase very much the respiratory difficulty. The danger in their use is to be found in the obtunding of the nerve centers, thus limiting the voluntary respiratory effort, an effort which is very necessary to the continuance of this labored respiration entailed by the obstruction.

The effect of the anesthetic should be allowed to pass off during the latter part of the operation, so that the trachea may be sensitive to the flow of blood if there should be any. There are many cases that will not require any anesthetic, for sensibilities are already benumbed.

The patient should be placed on the table upon his back, with head thrown back. The operator should stand at the head of the patient and in the axis of his body; the light should come preferably from above or from the left side. The cricoid cartilage serves as the guide for the primary incision, which should be made about an inch to an inch and a half in length. The section should be made in the median line; the anterior jugulars and thyroid veins are placed upon either side and contiguous to the line of incision, and should be avoided. The most frequent difficulty is found in the management of the isthmus of the thyroid body, which is usually placed over the second ring, and is best managed ordinarily by loosening it from the ring and lifting it forward so as to make the incision from below upward. Sometimes it is large, placed higher, and the entrance must be made below, or the isthmus cut through entirely and ligated. This condition, however, I have seen present only a few times. The trachea should be thoroughly exposed before opening, and one or two rings divided when hemorrhage has ceased.

The instruments needed are a knife, two pair of ordinary dissecting forceps, a director, two retractors, occasionally a tenaculum, and a hairpin (suggested and used by Dr. John T. Hodgen) bent on the flat at right angles, with the two ends secured in a cork or piece of wood; the bend should be half an inch from the loop or curve of the pin, with arms of pin from $\frac{2}{8}$ to $\frac{3}{8}$ of an inch apart, so that the tube may follow the convexity of the curve after it is placed in the trachea.

The dangers in the operation are to be found in the increased difficulty of respiration if attempted without anesthetic, or from the diminished respiratory effort if an anesthetic is used, so that the important element of the operation is the time consumed in it. A delay is sometimes dangerous and is always trying to the operator and his assistants. Hemorrhage is dangerous only if necessity is found for the opening of the trachea before it

has been controlled. Sometimes the depth of the trachea adds materially to the difficulty and danger of the operation. If the trachea is well exposed and the fingers accustomed to recognize its structure, there is usually no danger but what the incision will be made in the proper structure and the trachea certainly opened. The operator should always be able to feel distinctly the cricoid cartilage and the contiguous ring of the trachea. The incision into the trachea should be secured at the the time it is made. Mucus and blood will obscure the opening and make it difficult to find. If the bent hair-pin, used by Dr. Hodgen and heretofore described, is passed into the trachea before the knife is withdrawn, by placing bent portion against the side of the knife and carrying it into the trachea, then withdrawing the knife and turning point of hair-pin down the trachea so that the angle of the hair-pin separates and holds apart the lips of the incision, the trachea can then be lifted forward by the hair-pin and the tube carried into position on the upper convex surface of the pin.

The operator may be assured that the tube is in the proper position by the absence of labored respiration, by the free expulsion of air and mucus, by its passing readily into the wound, and by the shield resting fairly against the surface of the neck.

The tube best fitted to ordinary cases is, I think, the one made of one-quarter segment of a circle, a double tube without opening in convex surface. The size should be determined by the size of the trachea, and should be small enough not to stretch the tissues of the trachea. The tension and pressure upon the trachea by a large tube increase very materially the cough and irritation, and prove a source of serious inconvenience and sometimes exhaustion to the patient. The tube should be from an inch and a half to two inches long.

There is not much danger of any permanent impairment of voice from the operation. The wound usually heals without much difficulty after removal of the tube. I have never

seen a persistent fistula. The scar is usually a depressed adherent one. The tube may be removed as soon as obstruction in the larynx is removed, provided there has not been extensive cellulitis or sloughing of the parts external to trachea. If this has occurred, I think there is nothing to be gained by the early removal of the tube, for the secretion from external wound will pass into the trachea and may produce serious irritation, and the external wound will not heal until granulation tissue forms and the parts contract.

I have known the tube to be removed on the fifth day; in other cases it has been worn as much as six weeks. It can be determined that the parts are in a condition for removal of the tube by the returning voice of the patient, or by using a perforated tube and placing a cork in external opening and watching the respiratory movements of the child. This is usually best done when the child is asleep. The tube may be removed entirely, and a greased cloth placed over the external wound and held firmly in contact with tissues by a band about the neck, when if there is much difficulty it is better to wait until respiration is more free before removing the tube.

The patient is to be sustained by nutritive diet. I think I have found some benefit from the use of pilocarpin in minute doses, enough to produce action of the skin and to increase secretion from the trachea, thus helping to maintain the moisture of the tube and prevent obstruction by drying of the secretion. Further effort should be made to maintain a moist condition of the tube and trachea by placing over the opening a sponge or flannels dipped in hot water. These flannel compresses should be renewed every five or ten minutes during first forty-eight hours, and secretion from tube wiped off whenever patient coughs. Temperature of the room should be maintained at about 70°, and air of room rendered moist by steam.

ELECTRICITY IN THE TREATMENT OF DISEASES OF THE SKIN.

BY W. A. HARDAWAY, M. D., ST. LOUIS.

[*Read before Missouri State Medical Society, May 17, 1883.*]

IT is now about ten years since I began the systematic use of electricity, in its various forms, in the treatment of skin diseases. From time to time during this period I have published short papers on the subject; some dealing with positively ascertained facts, while others were in the nature of provisional reports. Now at the close of a decennium of practical work it would seem opportune to review the question in its entirety, in order that we may determine what has been accomplished, what has proved futile, and lastly, as to what may yet be accomplished in this special field of therapeutics.

A natural division of our subject is, first, "The Medical Uses of Electricity," and, second, "The Surgical Uses of Electricity." Under these general heads will be considered the diseases of the skin in which this agent has proved serviceable, the kind or form of electricity employed, and, so far as time will allow, the details of the mode of its application.

1. THE MEDICAL USES OF ELECTRICITY IN DERMATOLOGY.

In the early days of the revival of scientific electro-therapy much was expected from it in a class of diseases superficially seated, where the diagnosis could be more or less readily determined, and in which the indications for treatment were not difficult to appreciate. And again, it was only reasonable to suppose that so powerful an agent, possessing the most characteristic physiological effects, should prove of especial value in resolving infiltrations, in relieving pain and itching, and stimulating nutrition. Unfortunately these expectations have been only partially

realized. Ten or a dozen years ago favorable reports were more frequent than they are now.

Personally I have made use of one form or another of electricity, and I believe with a due appreciation of the best means of prescribing it, in a majority of cutaneous diseases, and, I am constrained to say, with mostly unsatisfactory results. In many instances other plans of treatment held out better promise of success, while in others the outcome was entirely negative. I believe I am fully justified in declaring that there is scarcely a disease of the skin in which we can place our sole reliance upon the medical use of electricity, but at the same time there are numerous conditions in which the correct employment of this remedy will prove of the most material assistance.

As first pointed out by Satterlee and Piffard, the faradic current is a very useful adjuvant in the treatment of *acne*. The positive pole is to be applied to the nape of the neck, and the negative to the region affected. I believe the galvanic current is quite as serviceable. One pole, it is indifferent which, should be placed in front of the ear, and the other passed over the eruption. I am far from endorsing Bartholow's extravagant statement that the worst cases of *acne* will get well under galvanism, if conjoined with proper attention to diet and hygiene. It will be found that other measures will be imperatively demanded.

I have tried the faradic current in a number of cases of *seborrhea* of the scalp with apparently good effect. The hair should be thoroughly wet, and a moderately strong current should be passed over the scalp for ten or fifteen minutes.

Both the galvanic and faradic currents, but particularly the former, are excellent palliatives in the distressing eruption of *urticaria*, but beyond this, as would be expected, their influence does not extend.

In the functional disease *pruritus* I have employed all manner of electrical treatment, general and local, galvanic

and faradic, but aside from temporary relief to the itching I have accomplished no permanent good.

In the pruritus of *eczema* I have given the patient marked and immediate relief by galvanism, but then the relief was not so long continued as from the use of other agents. Neither have I found that eczematous infiltrations were sensibly reduced by electricity.

Both in the acute stage of *herpes zoster* and in the chronic neuralgic condition which often follows, the constant current is of especial value. I can fully endorse Duhring's statement, that the pain and eruption may often be arrested by its timely application. The moistened sponge electrodes should be directly applied to the neighborhood of the eruption, and over the course of the implicated nerves. A descending current of about ten cells should be employed; each sitting should last ten minutes or more, to be repeated once or twice daily.

All varieties of *baldness* are helped by electricity, notably in the form of faradism.

I am well convinced that *alopecia areata* is greatly benefited by a moderately strong current applied directly to the seat of the disease.

The obscure but closely allied affections known as *scleroderma* and *morphea* should always be treated electrically. Marked improvement in scleroderma under galvanism has been reported by Piffard, Fieber, Armingaud and Schwimmer. I must confess that the only case of morphea in which I made use of galvanism did not show any immediate improvement, but I believe it is a condition in which electro-therapy should be given a thorough trial.

I am not prepared to say that the diseases of the skin enumerated above are the only ones in which electricity is useful, but the list merely includes those concerning which I feel any right to speak confidently. I could say a great deal more on this subject in a negative way, but such a course would scarcely be profitable.

2. SURGICAL USES OF ELECTRICITY IN DERMATOLOGY.

In the surgery of skin diseases electricity is an indispensable agent. In employing electricity surgically the object to be gained is mainly one of destruction. This end in many cases, but not in all, might and could be attained by other cauteries, but in electricity we possess a means which recommends itself on account of the ease and readiness of its application, and the facility with which we can control the destructive process. For this purpose the galvano-cautery is vastly inferior to electrolysis. The latter destroys tissue by chemical action, and not by the generation of heat as does the former.

In cases where electrolysis is not applicable I much prefer the thermo-cautery of Paquelin to the galvano-cautery. Therefore, in what I have to say under this head it must be understood that I refer exclusively to electrolysis.

The fully established practicability of safely and permanently removing superfluous hairs, especially from the face of women, is certainly to be regarded as one of the most beneficent contributions to modern medicine.

The proportion of bearded women in the community is greater than one unacquainted with the facts would suspect. The amount of deformity suffered by these truly unfortunate persons varies greatly; in some the growth may be limited to a few stiff hairs upon the chin or upper lip, or on the site of moles, or there may be all grades of hairiness from a respectable mustache to a patriarchal beard. These unsexed women are practically ostracized from social life, and not unfrequently become the subjects of profound melancholia or pronounced insanity. Of course the mental condition will greatly depend upon the age of the patient and the amount of the growth. Aside from congenital hirsuties, it is to be noted that these excessive and unnatural growths are to be observed almost as frequently during active menstrual life as in elderly women after the menopause. The etiology is obscure.

Although the writer had the honor of popularizing

this method among dermatologists, the credit of this brilliant conception must be ascribed to his friend Dr. Chas. E. Michel, of St. Louis. After many fruitless efforts to discover a means whereby the hair papilla could be permanently destroyed, it occurred to him that in electrolysis the requisite conditions would be fulfilled. The essential idea involved is, of course, the absolute destruction of the hair papilla, as a result of which no new growth of hair would be formed. At the same time, in making use of electrolysis the destructive agent could not be wiped off in passing down the follicle, the extent and intensity of the destruction could be accurately controlled, and best of all, the operation being done subcutaneously, scarring would be entirely absent. This method was put into execution by Dr. Michel in the treatment of trichiasis. Inspired by his results I lost no time in introducing this practice into my own branch of medicine. I have now for many years been removing superfluous hair from the bearded faces of women, and it gives me great pleasure to be able to-day to corroborate every word that I have published on this subject in the past. Received with incredulity at first, the electrolysis of the hair papilla is now everywhere enthusiastically practiced by dermatologists.

The method of procedure now adopted by me, and believed to be the most satisfactory under all circumstances, is as follows¹: A No. 13 cambric needle, or, as suggested by Fox, a dentist's reamer (from which, however, the temper should first be drawn), is attached to any convenient handle, which latter is connected to the negative wire of a galvanic battery; a moistened sponge electrode is connected with the positive pole.

Under a strong lens held in the left hand, the patient being seated in a reclining-chair, facing a good light, the needle is entered as nearly as possible into the hair-folli-

¹A greater part of this description is taken from my paper read before the American Dermatological Association in 1878, and published in the *Philadelphia Medical Times* of Feb. 14, 1880.

cle; after this has been accomplished, and not till then, the patient is told to approach the sponge (positive) electrode to the palm of the hand. The needle is not withdrawn until a slight frothing is observed around its stem, showing that the electrolytic action has been fully developed; but to avoid shock, the sponge electrode is first released by the patient, the needle being removed subsequently,—being exactly the reverse of the initial steps.

I always leave the hair *in situ*, as it is a guide for the introduction of the needle, the instrument being entered alongside of it, besides being an immediate guarantee of the success of the operation; for if the hair comes away with the very gentlest traction of the depilating forceps, a point always to be tested at once, we know that the papilla has been destroyed; but if force is required for its extraction, it is a sign that the follicle has not been properly entered. I have rarely known the hair to regrow when this test proved successful. By observing this simple rule, one is enabled to know at the time the success or non-success of his operation. If the hair does not come out with the feeblest traction, I reintroduce the needle time and again until it does: so that it is possible to make each electrolysis an almost absolute certainty as to permanency of result. With the larger number of hairs one introduction of the needle generally suffices for destruction; in some instances, however, the follicle does not run continuously with the apparent direction of the external portion of the hair, but diverges in one direction or another, thus making the entrance into or near it a matter of difficulty. In such cases the direction of the follicle must be sought for by repeated attempts. Frequently, when the follicle has been accurately penetrated, the fact is evidenced by the twisting of the hair as the needle is pushed in.

Under a strong lens (one- or two-inch) it is not difficult to introduce forcibly the needle directly into the follicle; but this is not absolutely necessary, as the requisite destruction occurs if the instrument is in its immediate

neighborhood. For the purposes of the operation I generally employ about eight cells of a freshly-charged galvanic battery. Each electrolysis occupies but a few seconds, the time occupied being in proportion to the number of elements used; but it should be remembered that the pain experienced bears the same relation. It may be well to say here that the amount of pain felt differs in different patients and also according to the regions attacked, and that, while it is by no means trivial, it is not unbearable, and a tolerance seems to be established after a few sittings. The immediate effect of an electrolysis is to produce an urticarial wheal around the mouth of the follicle, with a certain amount of congestion and peri-follicular exudation; in a few hours afterwards the circumscribed congestion of the tissues disappears, leaving small papules and pustules at the point of operation, which in turn leave behind them minute red cicatrices, which may remain visible for some weeks. For this reason, where the hairs are numerous, as upon the upper lip, I do not take out more than ten or twelve at a sitting, generally making the operations a week or more apart. Where there are but few hairs, situate on a less prominent region, all of them may be removed at the same visit. Minute scars are most apt to occur when it has been found necessary to introduce the needle a number of times for the same hair; but even on the lip the most marked cicatrices are not noticeable to the naked eye after a few weeks.

Like all other operations of a delicate nature, this one requires a certain amount of skill and tact only to be had by some experience in its performance; but fortunately the manipulations are easy and readily acquired, thus placing it at the disposal of any one possessing a good galvanic battery. I regard a powerful pocket- or hand-lens as an indispensable adjunct to the procedure: indeed, it is difficult to understand how it otherwise can be performed with satisfaction to the operator.

While it is possible to remove even very small, downy

hairs, such growths scarcely ever amount to a deformity, and their destruction entails so much annoyance and labor that I rarely ever make the attempt; but the *forte* of the operation is in the permanent removal of stiff, beard-like hairs occupying prominent regions. The long, robust hairs on moles are readily destroyed, and often the mole is made to disappear at the same time.

Both in simple *rosacea* and in *acne rosacea* the necessary destruction of the enlarged blood-vessels may be readily effected by electrolysis, and is superior to all other methods of accomplishing the same end in the rapidity of the operation and the freedom from scarring. This practice was first suggested by the writer some years ago.¹ But not only may the varicose vessels be thus effaced, but I have found that the hypertrophied tissues in *acne rosacea* may be made to shrink by free puncture with the electrolytic needle. The plan of procedure is the same as in the the operation for superfluous hair.

The electrolytic treatment of vascular nevi, especially of the erectile and pulsating variety has long been recognized and acknowledged as valuable; but I believe that I was the first to urge the same method in the so-called port-wine mark.² Lately, Dr. G. H. Fox has also advocated the practice as giving better results than the linear scarifications of Squire or the tattooing process of Sherwell. In port-wine marks of any extent a crown of fine needles should be employed; in smaller patches the single needle is all that is necessary. I have not seen a case in which some degree of improvement has not been manifest, and in some port-wine marks of small extent the results have been brilliant. At best, however, the operation is very tedious, and certainly has some drawbacks, but at present it is the most satisfactory at our command.

I have recently treated a well-marked and very chronic case of *erythematous lupus* by electrolysis with a result

¹Arch. of Derm.. Oct., 1882.

²Trans. of Am. Derm. Assoc., New York, Aug. 27, 1879.

which was very gratifying. Appreciating the good effects of multiple puncture in this disease, it occurred to me that one might accomplish as much, and more besides, by making these same punctures with the electrolytic needle. I was not disappointed; for after the diseased patch had been carefully and repeatedly gone over, there resulted a smooth supple scar which was little noticeable, and a complete subsidence of the morbid process.

Without taxing your patience further, I will close by enumerating a few of the diseases of the skin in which electrolysis may be confidently employed, viz: pigmented nevi, small fibromata, milia, nodules of lupus, sebaceous cysts, xanthoma (Fox), warts, cutaneous horns, and some stages of epithelioma. From certain observations that I have made in regard to the action of this means in hypertrophied scar tissue, I am inclined to look upon it favorably in keloid.

In short, it may be confidently stated that whenever it is necessary to use a destructive agent on the skin—one that is readily managed, that causes no hemorrhage, and leaves few scars—there is none better or more efficient than electrolysis.

VISITATION OF THE INSANE BY THEIR FRIENDS.

BY ALEX. B. SHAW, M. D.

[*Read before the St. Louis Medico-Chirurgical Society, May 1, 1883.*]

IN every asylum for the insane of any magnitude there is always a considerable number of inmates who are suffering from acute forms of insanity, and who have been but recently admitted. This class contains a large percentage of the curable cases. Of all forms of insanity that which develops suddenly, unexpectedly and unannounced—"like a clap of thunder from a cloudless sky"

—is the most trying to the relatives and friends of the patient, and produces in them much the same state of perturbation, in so far as the emotional being is concerned, as that of the fond parent whose amiable, lovable and loved child has disappeared in some mysterious manner; and “true to nature’s heart” in either instance the overpowering impulse is to be with the lost one.

This is natural, but sometimes it is well to make haste slowly. And as a rule, *it is well* for the friends to deny themselves and refrain from gratifying their desire to hold social intercourse with those afflicted with acute insanity who have been but recently removed to an asylum, for such contact cannot be otherwise than injurious to the insane.

Well might Pinel exclaim: “One must deplore the fate of mankind when one reflects upon the frequency and multiplied causes of insanity, and the numberless circumstances which may prove disastrous to those who suffer from it.” And, in my judgment, one of the most disastrous circumstances that can befall the insane is to be compelled through the mistaken kindness of friends and relatives to remain in contact with or to be frequently, though but for a moment, subjected through visitation to a renewal of those, to them, noxious circumstances, thoughts, ideas, emotions, faces, forms, fears, physical surroundings, occurrences, associations, etc., that were so familiar to them just prior to the development of their perversion of mind, and are woven into the warp and woof of their distorted fancies and imaginings. As conservators of the best interests of our patients, we as physicians recommend the removal of the insane to asylums in many instances not because they are either suicidal or homicidal, but because we are convinced that they should be as remote as possible from what may be termed home influences and surroundings that are so intimately associated with the causation and evolution of their insanity.

Frequently new surroundings, and the new thoughts,

emotions, etc., engendered thereby, secure rest for the disordered mind by diverting the expression of mental activity through new channels.

The result of the diminution or arrest of perverted mental action thus secured may in a measure be compared to the happy effects of immobilization of a sprained joint or fractured bone. The uniform daily life in a well conducted asylum is conducive to emotional repose; and it is a well established fact that functional repose is beneficial to either an organically diseased or functionally deranged organ. And it is equally true that anything which will disturb this functional quietude or further irritate the already irritated part must be injurious. Mental repose is of the first moment to the inmate of an insane asylum, and visitation of the sufferer by friends cannot but be productive of irritation and emotional disturbance. Emotional disturbances are frequently the prime cause of insanity. And in almost every case there is, as an accompaniment, a remarkable mobility of the emotional being.

Bucknill (p. 445) says, "removal from home is hygienic, inasmuch as it removes him (the patient) from the causes of his disease, and moral, inasmuch as it produces mental impressions which are often of much service in treatment." The change "affords new scenes, new faces, new objects of attention and subjects for thought, calling for the exercise of those faculties of the mind which are not diseased and repose for those that are. Visitation of the insane by their friends, as a rule, does infinitely more harm than good. I have known it frequently to undo in fifteen minutes all the progress that had been made towards recovery in the preceding two or three months, and this in instances where the attending physicians and experienced nurses had considered the patient convalescent. Indeed, the excitement and sleeplessness that generally follows contact with either relatives or friends, or strangers calling on patients at the instance of friends residing at a distance, is much, very much, more baneful than those not constantly associated

with these poor unfortunates can be made to comprehend.

Blandford in his work on insanity (p. 376), referring to the advantages of asylum life for the insane, says, "here the patient finds above everything else rest and safety. He is kept from accident and suicide. He is cut off from his friends and all with whom his delusions are so often connected. And here I would urge you to impress upon the friends the necessity of leaving the patient alone and unvisited when he is first placed in an asylum. To sever home ties and ideas is one of the main objects you have in placing him there."

Morbid propensities allowed to progress to their legitimate fruition become stronger as time advances. The reverse of this is equally true, for morbid inclinations, feelings and fancies diminish in time if uncultivated. Among the insane there is frequently great perversion of feeling, which does not manifest itself in either their conduct or language, and the existence of which we are not led to surmise. It lies dormant, and will remain unknown by the attendants and unfelt by the patient until the operation of time, that wonderful healer of the mind diseased, has eradicated it, if not revived from time to time by thoughts or emotions aroused by contact with something or some one that reminds him of his surroundings when these perverted ideas first entered his mind.

Friends frequently think it is want of sympathy on the part of asylum physicians that causes them so persistently to refuse their requests to see or converse with their insane, but it is frequently almost as trying to the physician to have to refuse their requests as it is to them to have their desire ungratified. They cannot understand why just a few moments contact should or could do any harm, but who can measure the quickness of thought or the intensity of emotion?

But a glance at the picture of a recently lost nestling is sufficient, amidst the excitement, care and anxiety of his busiest hour, to undo the strongest man, and flood not only

the eye but memory with bitterness amounting almost to despair.

How then with the emotionally excitable insane, with his uncontrollable impulses, actuated by his morbid imagination, all aglow with its distorted creations, hallucinations and delusions, when brought face to face with that which is calculated to revivify pernicious ideas and plunge him into depths of his original mental disquietude? Furthermore, not only is the visitation of those who have but recently become insane by friends or their representatives prejudicial to the best interests of the sufferer, but intercourse by means of letters should generally be prohibited. Not only because some unguarded statement or question may arouse some dormant morbid idea, but the reception of "*a letter from home*" will in many instances cement into a oneness the present condition and those circumstances, associations, emotions, suspicions, etc., which contributed so largely to its existence.

As Blandford says (p. 376), "to sever home ties and ideas is one of the main objects you have in placing him there" (in an asylum), and "all letters must in the majority of cases be interdicted * * * * * and the patient plainly and openly told that he is not well enough to carry on a correspondence, and that his letters, if written, will not be sent."

Introspection is one of the most common paths of thought pursued by those who are melancholic, and from what we know of the physiology of mind the bringing to remembrance of scenes, friends or occurrences with which the insane were previously familiar will invariably lead, as the last link in the chain of retrospection, to this undeniably pernicious introspection. A retrospect causes a mental rehearsal of all those associations, emotions, thoughts, fears, delusions, etc., which were closely connected with the evolution of the insanity, and in many instances were active factors in its production.

In conclusion, I will quote the language of Bucknill

(B. and T., p. 493) on the subject of intercourse between the insane and their friends. He says: "Nothing is more common than for an insane person to acquire antipathies to his dearest relations and friends, accompanied or not by suspicions and delusions. So long as interviews with such relatives, or even intercourse by letter or conversation with third persons, revive at intervals the full force of those feelings no improvement takes place; but if the patient is removed from all contact with persons and things which suggest unhealthy reminiscences, if conversation respecting his morbid feeling is interdicted, and especially if all intercourse with the objects of these feelings is absolutely denied for a sufficient period, antipathy gradually gives way to anxiety and the yearnings of restored affections."

THE ELASTIC LIGATURE.

BY JNO W. TRADER, M. D., SEDALIA, MO.

[*Read before the Missouri State Medical Association, May 15, 1883.*]

SOME years ago, a great deal was said about the elastic ligature. Sir Henry Thompson, perhaps, gave us a more elaborate report of the range of utility of this surgical appliance than any other writer on the subject. That it has not met the expectations of the profession, in all particulars, is because of the fact that too much has been expected. The enthusiastic resurrection of this important factor, in minor operations, had a tendency to place it upon a higher plane than it was possible for it to occupy.

Dittel, of Trieste, who first called attention to it, claimed that not only could pedunculated tumors and hemorrhoids be removed, fistulas be cured, and other minor operations be painlessly performed by it, but even graver and more important operations might be successfully done without pain. Amputations of the thigh and extirpations of the

mammæ were undertaken by this process. The pain was only for an hour or two, and the limb or breast would slough away in from three to six days.

The plan was to use rubber tubing, say an eighth of an inch in diameter.

Some of the processes described in the application of the ligature were fully as complex and painful as the knife, and nothing like so satisfactory in results.

There is a certain field for the ligature to occupy and you will be crowned with success, beyond this is disaster and failure. We should not expect "grapes of thorns, nor figs of thistles." For example: As regards the ligature, I believe a mistake was made in selecting the rubber tubing. Strips cut from good elastic bands, about a line in diameter and of the proper length, will answer every purpose.

Take a case of complete fistula and thread it with this ligature, tying as tight as the rubber will bear, and in about four days it will cut its way through the skin and the tough cartilaginous tract of the fistula with little or no pain. Pedunculated tumors, of the dermatoid tissue, may likewise be successfully removed by the ligature without very great pain and without a probability of their return.

I was called to see a case of hemorrhage from a cauliflower excrescence of the thigh. The tumor was two inches in diameter at its free surface, and half an inch in diameter at the skin attachment. The growth was of eight years' standing, and had been the source of fearful bleedings, at various times. I advised its removal, but the patient objected, saying that she had been told by a surgeon that it would probably kill her to have it cut off. I told her that I could remove it without cutting and with very little pain. I passed an ordinary cambric needle through the base and wound numerous turns of the elastic ligature between the needle and the limb—placed small corks on each end of the needle, which completed the operation for the present. When I returned in the evening, the patient said she

suffered considerable pain for two hours, but then the parts were becoming deadened. Two days afterward I removed the tumor, which had begun to decompose, with the scissors. In a few more days the constricted parts dropped off, leaving a smooth surface not larger than a split pea.

I have operated several times for fistula, both complete and occult, with the elastic ligature, and with uniform success.

I call your attention to the importance of this means, feeling certain that you may accomplish much in a very quiet way, where the horrors of surgery would not otherwise be tolerated.

THE TREATMENT OF OPIUM ADDICTION.

BY DR. J. B. MATTISON, BROOKLYN, N. Y.

AT a meeting of the St. Louis Obstetrical Society some time ago, a paper on "Morphia and the Morphia Habit" was read by one of its members, at the close of which he said: "But suppose your patient is habituated to morphia, either hypodermically or by the mouth, how will you cure him? Let him quit short, absolutely and entirely. If he have the will power, trust him; if he cheats, lock him up; put a Hercules over him as a nurse. * *

* All substitutes are simply a prolongation of the agony he must go through. * * * The patient who quits morphia, after a long established habit, suffers from insomnia, diarrhea, nausea, vomiting, aching all over and debility to such a degree that it is a marvel how he lives. * * * All this suffering will last five to ten days. No medicine will do any good; the stomach rejects everything, even a mouthful of cold water.

* * * At last, after 'several centuries of torture,' little by little, and *without medicine or substi-*

tutes, Nature accomplishes the cure. This terrible treatment, I am sure, is not only the best, but the only safe one to cure and secure the patient from relapse."

Now, in the name of humanity and the fair fame of the profession, I protest, with all the vigor at my command, against this *brutal, barbarous, inhuman* plan of treatment. The statements quoted are false, harmful and humiliating. Let us note this somewhat in detail. The assertion is made that this "several centuries of torture" method is the best and only safe one to cure and guard against relapse. This I emphatically deny. I am willing to admit that it will sometimes cure, but it occasionally *kills*; and, very often, occasions a perilous collapse, so dangerous that the immediate injection of morphia becomes imperative as an "indicatio vitalis" to avert impending death.

If any one has doubt of this, let him read Levenstein's monograph, wherein twenty-two cases thus treated are cited, in *seven* of which the patient was in imminent danger of dying, and only saved by the prompt injection, once or oftener—in one instance six times—of morphia!

Obersteiner also gives details of a case managed in this manner, in which the collapse was so alarming that it became necessary to inject no less than 1.0 gramme (15 grains) of morphia.

He also cites a second case in which the treatment was attempted, with the result that "when the morphia was entirely suspended dangerous nervous symptoms supervened. She was very excited; was often delirious; had tetaniform attacks, with such intense prostration that she was sometimes thought dead."

Of another case he states: "In the night of the third day he was seized with violent vomiting, repeated about eighty times within the twenty-four hours. The quantity of vomited matter was enormous, so that in this one day he became very low and prostrate, feet cold, and the pulse, which at one time was 76, sank to 46."

And all this the "best and only safe" plan of treatment!! Save the mark!

In a second paper he speaks of this treatment as "the cause of very great suffering to the patient," "or even jeopardizing his life," and instances the case of a young man, aged twenty-five, who, for nearly two years, had suffered from marked physical and psychical disturbance of an hysterical order, for which morphia, hypodermically, was given. Despite this, the nervous disorder persisted, and within two years from the date of his addiction he was placed under sanatorium regime. His daily taking was then about fifteen grains hypodermically. What followed is given in Obersteiner's words: "On the 19th he received about 0.1 gramme (grs. xv) morphia; on the 20th, none. There occurred diarrhea, sacral pains, feeling of cold, vomiting and fear of contractures. Hydrocyanic acid, chloral hydrate, tepid baths and wine were administered. 21st. The same: edema of face. 22nd. He feels very exhausted and complains of cramps about the heart. Pulse, 100; often intermittent. 23rd. Marked hyperesthesia of left side of body; breathing superficial, without the co-operation of the diaphragm; black excreta. The former contracted pupils are wide, re-act sluggishly. Still feeling of cold. Appetite returning. 24th. Slight spasms in various muscles—especially wide opening of the mouth—occur transitorily. 27th. Sleep pretty good; no diarrhea; appetite good. No desire for morphia; much stronger. 28th. Goes for the first time into the garden; feels well pleased with the result. Pulse, 108. Again puffiness about the face. During the night he complains suddenly to the attendant of precordial anxiety. The physician, called instantly, finds the body already lifeless; all attempts at re-animation prove useless."

In the absence of autopsic proof it is unfair to charge the fatal result in this case solely to the treatment adopted, yet I have no hesitation in expressing my belief that it tended to greatly aggravate a morbid condition—perhaps involving the cardiac center—previously existing, and thus precipitated an untimely ending which, under less heroic measures, might have been avoided.

So much for the "best and only safe" plan of treatment. Does it impress the average reader as such?

But what of the other claim to merit—"to secure the patient against relapse?" Obersteiner, in his first paper, gives details of nine cases thus treated, and in his second, referring to them, he says: "Perhaps only one of these cases, at most two, may be considered as examples of complete, permanent recovery. In all the others, treatment had no result, or had to be suspended, or relapses occurred." Some of Levenstein's patients relapsed, though in smaller proportion than Obersteiner's. As a fact, relapses will occur, to some extent, under any and every plan of treatment. To assert the contrary is absurd and untrue. Various factors affect the question and cannot now be considered. One general principle, however, covers all—if a patient exposes himself to the same influence that induced the first attack he will have a second—nay, more, the first addiction begets a peculiar susceptibility that increases the chance of a second. When cured syphilitics can expose themselves to renewed infection without hurt, or when convalescents from malarial disorder can live in a malarious clime without risk, then can the ex-opium habitué resort to an habitual narcotic without harm.

I have asserted that the statements quoted are *harmful*. Why? For the reason that if the treatment they commend be the "safest and best," then many a hapless victim of opium, who otherwise might be induced to accept the help that science offers, would rather "bear the ills they have," and refusing to pass through such a fiery ordeal, sink back into the helplessness of hopeless despair.

At this writing there is before me a letter from the wife of a naval surgeon—whose husband had written me in behalf of a young lady addicted to morphia—in which she writes: "She is now visiting me, and I would like to show her in print some of the journals containing reports of encouraging and successful cases, she being under the impression that a cure is only the result of many months of incar-

ceration and treatment." Now, do many suppose that if this patient were told that she could come out into freedom, but it must needs be through "several centuries of torture," that she would make haste to come? I trow not.

And is it not *humiliating* to assert that for the suffering slaves of opium our boasted "healing art" holds out a helping hand only through such dire distress? Is it the province of the *humane* physician to inflict rather than relieve? Is there no balm in Gilead? Must one stand idly by while "little by little, and *without medicine or substitute*, Nature accomplishes the cure?" Away with such pernicious doctrine! *Verily*, it is the "*cruelty of ignorance*";—as has been tersely said by a literary gentleman, ten years an opium habitué, whom I had the pleasure of seeing recover, and the history of whose case and cure, written by himself, is at command of any one for whom it may have a special interest—and, without egotism or disrespect, I make bold to say to any medical gentleman endorsing it, that while he may be well abreast the age in the general practice of medicine, he is far behind the times, and has much to learn on the therapeutics of opium addiction.

Is there a better way? *There is*. This paper, however, has reached a proper limit. Another, soon. If, meantime, some physician—well meaning but mistaken—shall hold, and "one more unfortunate" be spared this "terrible treatment," I shall be content.

URINE PASSED during the use of balsam of copaiba furnishes a deposit with nitric acid, which consists of copaibic acid, and may easily be confounded with albumen.—*Lewin's Accidental Effects of Drugs.*

THE PHILADELPHIA HOSPITAL FOR SKIN DISEASES has introduced complete apparatus for the administration of all kinds of baths. This institution seems to be in a very flourishing condition. We believe it was the first special hospital for such diseases established in this country.

CASES FROM PRACTICE.

TWO CASES OF LAPAROTOMY; ONE FOR OVARIAN TUMOR AND ONE FOR FIBRO-CYSTIC TUMOR.

BY T. E. POTTER, M. D., CAMERON, MO., *Professor of Physiology and Clinical Surgery in the Northwestern Medical College, St. Joseph, Mo.*

The frequency with which the operation of ovariectomy is being made; the importance of making a proper diagnosis before the operation is undertaken; and some of the difficulties that present themselves, to mislead practitioners, especially those who are young and ambitious, induces the author of this article to report, in full, the two following cases:

CASE I.—Mrs. Berge, aged 26 years, and the mother of four children, first consulted me in the fall of 1877. She had noticed an enlargement of the abdomen, three weeks after the birth of her last child, which was then about one year old. She suffered very much from sick stomach during eleven months, and all that time her abdomen had been exceedingly tender.

Upon examination, I found a large tumor. On percussion it fluctuated distinctly; and upon auscultation, and turning the patient from side to side, the movement of fluid could be plainly heard.

Examining per vaginam, I found the uterus movable, with some little displacement to the left. The tumor, which was very smooth and high up, could be plainly felt.

I diagnosed the case as one of ovarian cyst, and told her the only remedy was its extirpation. She decided to put off an operation as long as possible; for her children were small, and needed all her attention as long as she could give it.

I lost sight of her for about eighteen months, when she came again to my office to consult me.

She was enormously distended, and said something must be done, for she could not live much longer in that condition.

She could not yet consent to have the operation of ovario-

tomy made, but wished to be tapped. To this I consented, and on Oct. 1, 1880, with the assistance of Dr. Risley, of Cameron, Mo., I drew off six gallons of prune-juice colored fluid, weighing a trifle over 45 lbs.

She was out of her bed and running a sewing machine in ten days. She thought herself entirely well; but in six weeks the tumor was larger than ever.

Dec. 1, she applied to me to be operated upon.

Dec. 20th was the day set for the operation, which was to take place at the house of the patient, said house consisting of one small room, that was used by the whole family, as parlor, bed-room, and dining-room. The carpet was taken up, floor and walls well cleaned and carbolized. I was assisted by Drs. Franklin of Osborne, Risley of Cameron, and Eastman and Claggett of Emporia, Mo.

The patient taking chloroform well was soon under its influence. The abdomen was opened down to the peritoneum. Some little bleeding was stopped by the use of Monsell's solution of iron. The peritoneum was slit open on a grooved director, completing an opening of five and one half inches down to the tumor. This was multilocular in character, being composed of one very large cyst and seven moderately small ones.

After dipping my hand into a basin of water containing about two per cent. of carbolic acid, I passed in my finger and found adhesions in great abundance. I evacuated the large cyst by means of Fische's trocar, which I prefer to Spencer Wells', for the following reasons: 1st. It acts as a syphon, and enables the operator to puncture other cysts without much trouble, in case of multilocular tumors. 2nd. Owing to the blunt end of the trocar, it can be pushed to the bottom of the cyst, removing every particle of fluid, without any danger of injuring the intestines.

The fluid drawn off measured six gallons, and weighed, as when she was tapped, 45 lbs. The adhesions extended over a half of the surface of the tumor. They were nearly all anterior and superior, and so very strong that it took all the force I could bring to bear, assisted by Dr. Franklin holding the walls of the abdomen, to break them up. In our efforts, the peritoneum was torn loose from the walls of the abdomen, at least six inches in length and four in width. This gave no trouble

in after treatment. The omentum was so much lacerated that only shreds were left. There were no adhesions in the pelvic region.

The tumor was then drawn through the opening and presented a long pedicle, which was fastened by Atlee's clamp. The sac was cut off and weighed five lbs., besides the fluid mentioned above, making the whole weigh fifty lbs.

The abdomen was thoroughly cleansed with carbolized sponges, carefully prepared for the occasion, and the pedicle brought out.

The abdominal wound was brought together, its peritoneal surfaces in close approximation, by means of deep silver sutures; one at lower angle of the wound, and below the pedicle, while another was placed immediately above it. For superficial sutures silk was used. There were four deep and six superficial sutures.

The operation was finished in forty-five minutes; and at 3 P. M. the patient was entirely from under the influence of chloroform, and comfortably in bed, with pulse 84, temperature 99° F.; 9 P. M., pulse 72, temperature 99° F.: I gave one-fourth of a grain of morphia hypodermically.

Dec. 21st, 10 A. M., pulse 120; temperature, 100° F. Gave one-fourth of a grain of morphia hypodermically.

At 3 P. M., pulse, 122; temperature, 103°. Little milk given.

The patient complained at this time of great pain in her abdomen. Gave her a few spoonfuls of beef tea. At 10 A. M. she was sick at stomach and vomited some. This was quieted by morphia hypodermically.

Dec. 22nd I was called hurriedly at 7 A. M. Found her very sick at the stomach, and had been so from 3 o'clock in the morning. She was making great efforts to resist the violent attacks of vomiting. Morphia, given as before, quieted her. Pulse 145, weak, temp. 100.5°. At 12, pulse 120, weak, temp. 100.5°. At 3 P. M. pulse 120, weak, temp. 100.5°. At 9, pulse 120, full, temp. 101.5°.

At noon I gave wine whey, at 3 P. M. two fluid ounces of whiskey. Her pulse had improved in volume from 3 to 9 P. M.

At 9 o'clock she was sweating moderately. Commenced, at this time, giving her one-third tea cup of beef-tea every four hours. Stomach bore it nicely.

There was no peritonitis. No change worthy of notice took place until Dec. the 26th. Up to that time pulse and temperature remained the same. The nausea continued, and was controlled by morphia given hypodermically. The pedicle was kept dry by applications of Monsell's solution of iron. Food tasted good.

Dec. 27th, she suffered very much with pain in the bowels and considerable meteorism. Gave her an injection of soap suds, with common salt, which produced a full operation, and afforded perfect relief. Up to this time the wound was dressed twice a day, after this only once.

On Jan. 4th, 1881, the pedicle came off and deep sutures were removed. The pulse continued 120, tem. 100.^o F. She was troubled greatly with tympanitis, which was relieved with anise seed tea. The emaciation was so great as to be almost alarming.

From this period she steadily improved. I kept her in bed until Feb. 20th, when I allowed her to get up, and in five days she was doing her own work. She is now, May 10, 1883, in much better health, and weighs more than she ever did before. The catamenia are regular, and the pedicle has never given any evidence of hemorrhage.

I have the tumor preserved in alcohol; and one of the small cysts, which has never been evacuated, is about the size of a new-born babe's head, and bears the perfect imprint of a baby's face, with eyes, nose, and mouth, and at first sight is taken by every one for a babe's head. The ovary was removed with a small cyst, and measures 2½ inches in length, by 1½ inches in breadth. Upon its surface are several small cysts, about the size of an ordinary pea.

CASE II.—Mrs. Jacob Fox, of Kidder, Mo., came to consult me April 26th, 1881, concerning a tumor she had carried for more than nine years. She was forty-three years of age, and had never given birth to a child. The tumor began in right iliac region, and, at first, gave the most excruciating pain. It grew very gradually, and as it increased, the pain subsided. It was movable, and when not interfered with was always on the right side. The pedicle was long, and when she changed her position, while lying down, by turning from one side to the other, it would move, of its own weight, to the side upon which

she was lying. She had had it examined, from time to time, by several physicians, who all told her that it was an ovarian tumor; and Mrs. Fox, who is a very intelligent lady, stated that fluctuation was detected by all who had examined it, until three years ago, when it had ceased to be so marked. From this time its apparent solidity increased, its appearance changed, and menorrhagia began. The menorrhagia lasted from ten to twelve days each month. She had made up her mind never to submit to an operation. This resolution she carried out until April 20th, 1881, when she was attacked with inflammation of the bowels, which threatened her life, and when sufficiently recovered she consulted me about having the tumor removed. On examination, I found distinct fluctuation, the surface of the tumor smooth, with two prominent nodes on the main body. One was on the left superior portion, the other on the right inferior part. It was lying obliquely in the abdominal cavity, the heaviest part on the right side. Every method for ascertaining whether the tumor was ovarian or a fibro-cystic tumor of the uterus was resorted to, with the exception of aspiration. As the patient had to return home that evening, we did not resort to this. To me the tumor gave every evidence of an ovarian cyst, multilocular in character. I could see but one or two reasons to doubt this diagnosis: viz.—1st. The menorrhagia which had occurred monthly for three years was an evidence of fibroid or fibro-cystic tumor. 2nd. The fluctuation was not as distinct as it always is in ovarian cysts, yet there was marked fluctuation. I told her what was the only hope of relief. After returning home and consulting her husband and friends, she determined to run all risks and have the tumor removed. The time for the operation was set on May 9th. All proper preparations were made, and she seemed cheerful and hopeful up to the evening of the 8th, when all courage gave way completely, and she became so nervous that it was impossible to compose her. I was assisted by the same gentlemen as before, with one exception, Dr. T. Brown, of Hamilton, filled the place of Dr. Risley, of Cameron. I made this operation under the antiseptic spray. Chloroform was administered, and same incision made as in first case. The tumor presented itself without adhesions, very dark in color, with large venous sinuses crossing the surface. Upon tapping,

very little fluid escaped. Finding it impossible to reduce the tumor, I made the incision three inches above the umbilicus, making the entire opening nine inches. The tumor was then turned out without much difficulty, when we found the pedicle composed of the uterus and appendages. The ovaries, right and left, could not be seen, as they were both taken up by the growth. I at once transfixed the pedicle near the right side with two ligatures, so as to gather the blood vessels on this side in the first, and the main part of the pedicle and blood vessels on the left side in the second. I then removed the mass by enucleation, one and a half inches above the ligature. There was but little hemorrhage, and a second ligature was used as further guarantee against any. The pedicle was then dropped back into the cavity of the abdomen, and both this and the pelvic cavity were carefully cleansed with carbolized sponges. The wound was brought together with silver sutures. The patient came from under the influence of chloroform with a pulse of 84, temperature 97° F. Gave whisky and one-half grain morphia hypodermically. She suffered no pain, but was very nervous. The operation occupied just forty minutes.

At 4:30 P. M.—Pulse 96. Temp. 97°

Patient very restless. Gave a quarter grain of morphia.

At 6 P. M.—Pulse 97. Temp. 97.5° Respiration, 16.

“ 7 “ “ 110. “ 97.5° “ 16.

“ 8 “ “ 115. “ 97° “ 16.

Gave her about two fluid ounces milk with some whisky. This made her slightly sick at her stomach.

Through the afternoon the patient was perfectly rational, and enquired about her condition; but was so excited when her friends came in, that I had to forbid the presence of any excepting those who were to nurse her. At 9 P. M., her pulse was same as at 8, but now intermitted once in every twenty beats, and her body became covered with a cold sweat. At midnight, pulse 120, much weaker than before; temperature 97° F. She was again exceedingly restless. I gave one-eighth grain morphia hypodermically, and ordered her a little whisky. At 1:30 A. M., she began to fail rapidly, and died at 2. I carefully examined the wound and pedicle to see if there had been any hemorrhage, but there was none.

The solid portion of the tumor weighed eighteen pounds, and

the fluid was not accurately measured, as most of it escaped on the table, but it was estimated at about five pounds.

The tumor was filled with cavities and sinuses. Some of the cavities were large enough to contain one quart of fluid. The sinuses varied in size from very small ones up to those measuring three-fourths of an inch in diameter. They ran in every direction, giving the tumor, after evacuation, the appearance of a large, coarse sponge. These cysts and sinuses clearly explained the fluctuation elicited all along. The posterior surface was covered with a purulent fluid, which was no doubt, due to the recent attack of inflammation of the bowels, which had driven her to the operation.

At the right superior portion of the tumor, was attached, by a fibrous string, a small, kidney-shaped mass, that, on a casual examination, looked so much like an atrophied kidney that it brought about quite a discussion as to whether it was not a kidney. It had the shape, but was only about half as large. Upon opening it, one-half was found to be filled with purulent fluid, and the rest was so disorganized that a careful microscopic examination gave no satisfactory solution as to what it was. A post-mortem not being allowed, the question was not settled.

Goodell states, in the *American Journal of Medical Sciences* for July, 1879, that "The vulnerability of the peritoneum, the important organs which it contains, and the fatal character of the diseases for the relief of which its sanctity is invaded, make the record of every case imperative."

It seems to me this suggestion should be followed to the letter; but more especially in those cases which present any new feature, or afford experience that may act as a caution to the profession, and help to prevent error, either in diagnosis or treatment.

THE GRAND RIVER MEDICAL SOCIETY will hold its eighth annual meeting at Chillicothe, Mo., beginning June 5th and continuing three days.

TINSLEY BROWN, M. D., Pres.

A. L. McCORKLE, M. D., Sec'y.

EDITORIAL.

VERATRUM VIRIDE IN TYPHOID FEVER.

Another method of treatment of typhoid fever than those to which we have recently called attention in these pages, is that which proposes to control or at least to moderate the high temperature, not by abstracting heat by cold applications as in Brand's method, nor yet by the administration of antipyretic doses of quinine or salicylic acid, but by the direct retarding of the heart's action and the circulation of the blood by means of cardiac sedatives.

Dr. A. W. Nelson, of New London, Conn., contributes to the April number of the *Archives of Medicine* a paper on the use of veratrum viride in typhoid fever. This drug may be considered the cardiac sedative *par excellence*, and its use has been attended with most satisfactory results in the hands of physicians all through the country in the treatment of acute inflammatory affections. Its use in the continued and zymotic fevers has been by no means so common, and comparatively little has been written upon the subject.

Dr. Nelson presents brief records of twenty-eight cases, in summarizing which he remarks that under the veratrum viride treatment the skin was frequently moist, in some cases constantly; the tongue was moist and there was a noticeable absence of sordes, often so unpleasant and significant. Sleep was usually quite natural. There was no faintness nor increased weakness, as had been expected from the effect of the drug. Only in two or three instances was there vomiting, and in these it is not certain that the drug was the cause.

There was a mitigation of the fever and of all the prominent symptoms; and the stomach retained nourishment well. He

regards the diarrhea and ulceration of Peyer's glands as due in great measure to the prolonged high temperature, and believes that the diminution of blood friction and lessening of heat which result from the administration of the *veratrum viride* directly reduce the dangers of ulceration, hemorrhage and perforation which are so grave in ordinary cases of typhoid fever.

His method of treatment is to administer the officinal tincture in doses of one to two drops every hour from the commencement of the disease to convalescence. As *veratrum viride* is eliminated rather rapidly from the system, he estimates that these patients were usually under the influence of from three to twelve drops continuously.

His conclusion is that: "A tendency of the typhoid ferment to exhaust itself at about fourteen days, the *veratrum viride* emphasizes, so that very many cases determine at twelve days, some at fourteen or fifteen, a smaller number at three weeks. Very few determine indefinitely, as do a large proportion in other treatments."

THE AMERICAN MEDICAL ASSOCIATION will hold its next annual meeting in Cleveland, June 5th to 8th inclusive.

All railroads west of Pittsburg, Salamanca and Buffalo, east of Chicago and south of Cleveland will carry delegates and members of their families to Cleveland at one full fare, and return them on certificate signed by the chairman of the committee of arrangements (certifying that they have been in attendance at the meeting of the association), at one cent per mile.

The Trunk Lines east of Buffalo, Salamanca and Pittsburg, and lines west of Chicago, have refused to make any reduction. The rates per diem at the hotels will be, Kennard House, \$3.00; Weddell House, \$3.00; Forest City House, \$2.50 to \$3.00; American House, \$2.50; Hawley House, \$2.00; Striebinger House, \$2.00; Clarendon House, \$2.00, and Prospect House, \$2.00.

BOOK REVIEWS AND NOTICES.

TRANSACTIONS OF THE TWENTY-NINTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF NORTH CAROLINA AND CONJOINT SESSION OF THE NORTH CAROLINA BOARD OF HEALTH, held in Concord, May 9-11, 1882.

The transactions of the N. C. Board of Health have already been noticed in these pages (vid. Jan. No.). We notice in the transactions of the Medical Society the annual address by Dr. A. W. Knox, who gave a history of vaccination, with a résumé of its present status, and the relation of the public and the profession to it. It is an able summary of the subject. Dr. Thos. F. Wood, the retiring president, gave an address in which, after referring to the early days of society and the first Board of Censors in 1800 or 1799, he gave some account of the work of the State Board of Medical Examiners as at present conducted. He then discussed briefly the subject of State Medicine, in which field he is himself a diligent worker. In conclusion he remarks upon the question of medical ethics as suggested by the New York Code, and refers to the subject of specialism in medicine. A paper on Stricture of the Male Urethra by R. L. Payne, M. D., of Lexington, furnished material for quite an animated discussion. The report of a case where the right arm was forcibly torn from the body by being caught in machinery, was given by R. F. Lewis, M. D., of Lumberton, and is illustrated by a wood-cut showing the appearance of the patient after recovery from the accident.

Several pages are given to the report of Dr. N. J. Pittman, who was a delegate to the International Medical Congress in London in August, 1881. An extended report on the Progress of Materia Medica and Therapeutics is given by Dr. George G. Thomas, of Wilmington, N. C., and also one on Obstetrics and Gynecology, by Dr. A. W. Knox, of Raleigh, while a briefer one is presented by Dr. H. W. Lilly, of Fayetteville, on Pathology and Microscopy.

COMMUNICABLE DISEASES IN MICHIGAN during the year ending Sept. 30, 1882, and Work of the Board of Health restricting the same.

This is a report prepared in the office of the Secretary of the State Board of Health and reprinted from the Annual Report of the State Board of Health for the year 1882.

This report contains accounts of outbreaks of diphtheria, scarlet fever and small-pox in different places in the state, and the measures taken by different local boards of health for the restriction of the disease. The report would be of interest to any one who has official duties to discharge in the way of sanitary service, and to anyone who is studying the scope of preventive medicine.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE, for the use of physicians and students. By JAMES TYSON, M. D., etc. Fourth Edition, revised and corrected, with colored plates and wood engravings. *Philadelphia*: P. Blakiston, Son & Co. 1883. 16mo., pp. 196; cloth, \$1.50. (St. Louis: J. H. Chambers & Co.)

Dr. Tyson's manual on examination of urine is the best and most thoroughly practical work on the subject now before the profession. This new edition has been thoroughly revised and contains a good deal of matter additional to that in the preceding edition. In this new material we notice additional tests for albumen, sugar and other organic constituents, and several new illustrations in the part of the work devoted to microscopic examination. To students and practitioners we most heartily recommend this book.

THE FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS in Childhood, Youth, Adult Age and Advanced Life, considered in their physiological, social and moral relations. By WILLIAM ACTON, M. R. C. S., etc. Sixth Edition. *Philadelphia*: P. Blakiston, Son & Co. 1883. 8vo., pp. 267; cloth. (St. Louis: J. H. Chambers & Co.)

The sixth edition of Mr. Acton's work on the reproductive organs needs slight notice at our hands. It is already too well known to the profession to demand at this day any extended review. While there may be a legitimate difference of opinion in the minds of practitioners who are equally well qualified to form an opinion as to some of the views held by Mr. Acton, we think *in the main* they have received the approval of most of those who have given the subject careful attention and consideration.

BOOKS AND PAMPHLETS RECEIVED.

Communicable Diseases in Michigan. Reprint from Annual Report of Michigan State Board of Health for the year 1882.—The Pathology and Morbid Anatomy of Tubercle. Report to the Wisconsin State Medical Society. By N. Senn, M. D., Milwaukee. Reprint from Transactions State Medical Society of Wisconsin.—Trichinæ, Their Microscopy, Development and Death, etc. By W. C. W. Glazier, M. D.—The Bacteria. By T. J. Burrill, Ph. D. From the Eleventh Report of the Illinois Industrial University.—The Storage of Electricity. By Henry Greer.—Proceedings of the Sanitary Council of the Mississippi Valley, at its Fifth Annual Meeting, Jackson, Mississippi, Apr. 3 and 4, 1883.—The Best Method of Treating Operative Wounds. By Henry O. Marcy, A. M., M. D., Boston, Mass.—Transaction of the American Medical Association. Vol. XXXIII. 1882. 8vo., pp. 669.—Bulletin of the Science Lyceum.—Report of Proceedings of the Illinois State Board of Health, April 12-14, 1883.—The Opium Habit, its Successful Treatment by the Avena Sativa. By E. H. M. Sell, A. M., M. D.—Allen's Human Anatomy. Section III. Muscles and Fasciæ. Henry C. Lea's Son & Co., Philadelphia. 4to., pp. 334.—Insanity, its Causes and Prevention. By Henry Putnam Stearns, M. D. New York: G. P. Putnam's Sons. 8vo., pp. 248; cloth, \$1.50. (Through H. R. Hildreth Printing Co.)—In-Knee (Genu Valgum) in its Relation to Rickets. By W. J. Little, M. D., etc., assisted by E. Muirhead, M. R. C. S., etc. Illustrated by upwards of fifty figures and diagrams. New York: D. Appleton & Co. 8vo., pp. 161; cloth. (Through the H. R. H. Printing Co.)—Brain Rest. By J. Leonard Corning, M. D. New York: G. P. Putnam's Sons. 16mo., pp. 103; cloth, \$1.00. (Through the H. R. Hildreth Printing Co.)—An Index of the Practice of Medicine. By Wesley M. Carpenter, M. D. New York: Wm. Wood & Co. 1883. 32mo., pp. 302; Morocco (and flap). (Through H. R. Hildreth Printing Co.)—The Diseases of Women. By Heinrich Fritsch, M. D. Translated by Isidor Furst, with 159 wood engravings. New York: Wm. Wood & Co. 1883. 8vo., pp. 355; cloth. (Wood's Library). (Through H. R. Hildreth Printing Co.)—Diseases of the Ovaries. By Lawson Tait, F. R. C. S. Fourth Edition, re-written and greatly enlarged. New York: Wm. Wood & Co. 1883. 8vo., pp. 357; cloth. (Through H. R. Hildreth Printing Co.)—Aids to Medicine. By C. E. Armand Semple, B. A., etc. New York: G. P. Putnam's Sons. 1883. Small 16mo., pp. 120; paper, 25c.; cloth, 50c. (Through H. R. Hildreth Printing Co.)—The Dispensatory of the United States of America. By Wood, Remington & Sadler. Fifteenth Edition. 8vo., pp. 1,928; sheep, \$8.00. Philadelphia: J. B. Lippincott & Co. 1883. (Through the H. R. Hildreth Printing Co.)—Homicide and Suicide. By John G. Lee, M. D., Philadelphia. 8vo., pp. 32.—Handbook of Medical Electricity. By A. M. Rosebrugh, M. D. 32mo., pp. 54; Toronto.—Diseases of the Throat. By Carl Seifer, M. D. Philadelphia: Henry C. Lea's Son & Co. 8vo., pp. 295, with seventy-seven illustrations. 1883.—The Diagnosis of Insanity. By D. A. Morse, M. D. Reprint from Columbus Medical Journal.—Alcohol. By Geo. C. Pitzer, M. D.—Report of the Board of Managers of the State Lunatic Asylum, No. 2: to the Thirty-Second General Assembly of the State of Missouri.—Second Annual Announcement of the Iowa College of Physicians and Surgeons at Des Moines.

TRANSLATIONS.

SARCOMA OF THE AXILLA AND SUB-CLAVICULAR REGION.—LIGATURE OF THE VESSELS.—CURE.

Prof. Julliard, in the *Revue Med. de la Suisse romande*, describes the case of a woman of 72 years who suffered from an enormous sarcoma filling the axilla, raising the anterior coverings of the chest and passing along the clavicle to the sternum, non-adherent to the skin, but slightly movable in the deep parts. It had appeared about two years back in the axilla and sub-clavicular space. For six months there have been sharp pains in the arm. Three months ago the arm began to swell, and the pains extended to the fingers. At the present time the whole limb is edematous. The patient suffers from formation and severe pain. The affected arm is much weaker than the other. The tumor is painless, and it merely inconveniences the patient by its volume.

Operation Aug. 25, 1881.—The tumor lay under the pectoralis major, to which it was slightly adherent, but was strongly attached to the subjacent parts in the axilla and behind the clavicle. The sub-clavicular artery and vein, in fact, traversed the growth. These vessels, together with the axillary, were ligated, and the tumor was raised from its bed so as to expose the brachial plexus, some of whose branches it surrounded; these were dissected out and the plexus left intact. Seven centimeters of the great vessels were contained in the growth.

The wound healed by first intention. Radial pulse ceased at time of the ligation, nevertheless the arm has always preserved its color, its temperature and normal sensibility; the edema disappeared the day of the operation, but on the fifth day it recommenced, and increased little by little until complete cicatrization, since when it has remained stationary and a little more pronounced than it was before the operation. The explanation of these phenomena is this: The tumor by

compression of the axillary vein favored edema, also by paralysis of the vaso-motors through pressure of the brachial plexus. The removal of the tumor relieved both conditions. As cicatrization was completed the plexus was involved, and the old state of things returned, the vein being closed altogether.—*Arch. de Med.*, March, 1883.

TYPICAL CASE OF OBLITERATION OF THE THORACIC AORTA NEAR THE MOUTH OF THE DUCTUS ARTERIOSUS.

BY DR. MARK SOMMERBRODT, BERLIN.

Patient male, aged 46, in military service; strongly built, formerly well nourished, but of late much emaciated. Had suffered since childhood from palpitation of the heart, which later became more marked. Entered the army 1851, but in 1865 had an apoplexy, which recurred repeatedly, rendering him unfit for service. In 1870 he entered the Berlin hospital.

Upon superficial examination there can be seen along the inner edges of both scapulæ a number of pulsating places that prove to be composed of branching cutaneous arteries, much enlarged and tortuous, and of the diameter at least of a crow's quill; their pulse corresponds to the radial, and is nearly synchronous with the heart's systole. In these vessels can be heard, through the stethoscope, a snapping systolic sound. The supra-clavicular spaces rise with each systole; in them can be heard a loud systolic sound, almost a singing sound. In the crural arteries, especially in the left, the pulse is unusually weak. Epigastric arteries much enlarged.

Symptoms of multiple cerebral apoplectic centers are present in the unequal and deficient action of the iris, difficult deglutition, and marked disturbance of articulation.

No proper disturbances, motor or sensational; patient had been bed-ridden for some time on account of weakness in the legs, but this may be explained as due rather to the state of the circulation.

Patient died June 15, 1877, under increased cerebral symptoms, complete unconsciousness, etc.

Post mortem: Vessels at base of brain in many places sclerosed. Arteria vertebralis sinistra, shortly before its mer-
gence into basilaris, is changed into a very small canal passing
into an aneurismal enlargement.

In the brain medulla, numerous yellowish centers of soften-
ing, about the size of peas. In both corpora striata, a number
of small centers.

Upon removing the soft parts over thorax several branches
of the internal mammaries are exposed, which are as large as
goose quills, and pass tortuously into the equally enlarged
epigastric arteries. The external iliacs, as well as the abdomi-
nal aorta, if anything, are somewhat narrowed.

The heart is not dilated, but the left ventricle specially is
hypertrophied. There are but two aortic valves; one, the
much enlarged left; the other is formed of the right and pos-
terior valves. The ascending aorta is dilated and thickened
with calcareous plates. The innominate, left carotid and sub-
clavian are much dilated and thickened, also both thyroid
axes. The arteries of the muscles and integument over the
upper dorsal origin are much convoluted and enlarged.

Next beyond the attachment of the obliterated ductus arte-
riosus, the aorta narrows funnel-wise and comes to complete
occlusion. Below the occluded part, one-fifth inch long, the
aorta begins to enlarge but remains quite narrow. The two or
three intercostals given off just below the occlusion are enor-
mously enlarged, and communicate with the enlarged dorsal
vessels.—*Virchow's Archives*, March 2, 1883.

SUDDEN DEATH OF A PHTHISICAL PATIENT DUE TO ENTRANCE OF AIR INTO THE VESSELS.

DR. M. VOGEL, EISLEBEN.

A girl aged 5 years, suffering since the first year of her life
from pulmonary disease, was under medical charge for several
weeks. After a violent cough the child suddenly died while
crying out "Oh, my breast!" At the post mortem made while
the body was still perfectly fresh, I found at the right lung
apex a cheesy, broken down gland, which lay between one of

the larger bronchia and the subclavian vein. The latter had been attacked by the suppuration, was softened at the spot, and exhibited an irregular opening. The bronchus was also eroded. Air blown into the chief trunk escaped through a side opening in the branch. Among the bronchia were several more cheesy glands. In the heart there was a little liquid blood containing very large air bubbles. There was also air in the spleen, which shimmered through the capsule in form of bubbles; crepitation could be heard upon pressure, and air escaped upon section. The same could be observed in the kidneys and mesentery.—*Berlin Klin. Woch.*, Mar. 20, 1882.

BORACIC ACID.—EDMUND DANA, JR., states, that while cold water and alcohol hold in solution only 18 grains of this acid to the fluid ounce, hot water dissolves 80 grains, but on cooling all except 18 grains precipitates. Hot glycerine on the other hand dissolves 180 grains, and retains the whole amount on cooling. The acid is not soluble in paraffine, wax, vaseline, oil or spermaceti. Vaseline cold or hot does not affect it, but does readily unite with the boracic glycerine at a high temperature and remains permanent on cooling. He suggests the following formulæ as a substitute for the mixtures of vaseline and boracic acid, which he thinks are simply mechanical and sometimes irritating on account of the action of the undissolved crystals upon the ulcerated surfaces:

Glycerite of Boracic Acid.

R. Acid. boracic.	-	-	-	-	3ij.
Glycerinæ,	-	-	-	-	3i.

M. Dissolve the acid in the glycerine suspended in a hot water basin until dissolved.

Acid Boracic Ointment.

R. Acid. boracic. glycerit.,	-	-	-	3ij.
Ceræ albæ	-	-	-	3ij.
Vaselinæ	-	-	-	3xij.

M. Mix the wax and vaseline together and while hot add the glycerine slowly with constant stirring while cooling.

Druggists' Circular, Oct., 1882.

REPORTS ON PROGRESS.

SURGERY.

Indian Treatment of Syphilis.—J. MARION SIMS gives a very interesting account of a method of treating syphilis which originated among the Creek Indians, and has since been perpetuated on the plantations of certain districts in the south among the more intelligent of the negroes, and was learned from them by Drs. Freeny and Banks, and by Dr. McDade, the latter of whom has modified the treatment and reduced it to a scientific basis.

Dr. McDade says that the remedies used by the negro Lawson, from whom he learned the treatment, consisted of ten or a dozen indigenous roots, a handful of each, with a certain quantity of salt, alum and iron slugs put into three gallons of water and boiled down to one gallon. Of this, the patient took half a pint three times a day. There was also a decoction of roots for local use. Dr. McDade so far modified the formula as to omit the alum, salt and iron slugs, and such of the roots and herbs as are known to be inert. He selected the few that are known to have medicinal properties, and instead of making a decoction as had been done before, he had fluid extracts prepared, thus securing uniformity of action.

The formula as used by Dr. McDade for some years past is the following:

- R. Ext. smilacis sarsaparillæ, fl.
- Ext. stillingiæ sylvaticæ, fl.
- Ext. lappæ minoris, fl.
- Ext. phytolacæ decandræ, fl. - āā ȳii.
- Tr. xanthoxyli Caroliniani, - - ȳi.

M. Sig. Take a teaspoonful in water three times a day before meals, and gradually increase to tablespoonful doses.

Dr. Rush Jones, of Montgomery, Ala., has used this treatment very successfully for many years and pronounces it most

satisfactory. He uses it now to the entire exclusion of mercury and iodide of potassium.—*Brit. Med. Jour.*, March 10, 1883.

[It would be well to test this treatment in the wards of our hospitals.—ED].

Division of the Femur below the Trochanters, performed simultaneously on both sides, for Ankylosis.—DR. JOS. C. HUTCHINSON reports a case of a boy, aged 13 years, in which division of the femur below the trochanters was performed simultaneously on both sides, for angular ankylosis of the hip-joints following coxalgia. As the result of the operation it is stated that the lordosis continues, but is slightly less marked than before the operation. There is some obliquity of the pelvis towards the right side. The lower extremities are straight, or nearly so; the thighs are slightly adducted, especially the right. He often uses a cane, but can get about very well without it. There is no motion at the hip-joints nor at the seat of the osteotomy, but there is considerable increase of mobility in the lower lumbar and sacro-vertebral joints.

This case is especially worthy of note from the fact that the osteotomies were made by open wounds directly to the bone; it was not intended to make them subcutaneous. The osteotome was introduced and placed transversely across the bone in order to divide it, and consequently the external air was admitted directly to the interior of the bone.

This case has a further interest, from the fact that it is the only one in which osteotomy of the upper part of the thigh-bone has been done upon both sides simultaneously. The operation commends itself to the surgeon on account of both its simplicity and safety. The external wound behaves as well and heals as readily as a simple tenotomy; indeed Dr. Hutchinson states that he has seen more local disturbance from an ordinary tenotomy than occurred in any of the eight osteotomies that he has performed on the femur.—*Am. Jour. of Med. Sci.*, April, 1883.

Gastrostomy, Esophagostomy and Internal Esophagotomy for Stricture of the Esophagus.—Operations on the internal organs of the body have become much more common than they were formerly, and in recent years the stomach has been very fre-

quently operated on with the view of counteracting the effects of esophageal obstruction.

Dr. MORELL MACKENZIE analyzes the cases of this character which have been already published, and gives an account of two new cases.

He finds that gastrostomy has been performed 81 times, and that death occurred from shock in 27 or in 33.3 per cent.

The advantages of gastrostomy are: 1. That it can be carried out with comparative ease. 2. That there is very little risk in the steps of the operation itself, especially if done in two acts separated by a proper interval of time. 3. That there is almost entire certainty of being able to effect the object aimed at, which is the establishment of an alimentary fistula altogether beyond the seat of stricture; and 4th, that the fistula is hidden from sight. The only disadvantage is that gastrostomy still yields a high percentage of deaths.

Twenty-six cases of esophagostomy are analyzed; of these, 16 died within a fortnight, and seven died from shock.

The advantages claimed for *esophagostomy* are:

1. That it is attended with comparatively little shock.
2. That it facilitates subsequent dilatation of the stricture; while the disadvantages are that the operation is a very difficult one, and attended with considerable danger from its proximity to so many important structures, and there is great uncertainty in any given case whether the opening in the esophagus can be made below the stricture; and finally a discharging fistula in the neck is a conspicuous disfigurement.

Seventeen cases of *internal esophagotomy* are analyzed, and the following advantages claimed for this operation:

1st. That it is attended with an inconsiderable amount of shock.

2d. That if the stricture can be thoroughly divided, gradual dilatation can be carried out, and a cure thereby effected.

3d. That the procedure involves no external wound. The disadvantages of internal esophagotomy are:

1st. That it can only be safely performed in cases where it is still possible to pass a bougie.

2d. It is often difficult to pass all the strictures.

3d. In many cases, the walls of the esophagus are so thick-

ened that limited longitudinal incision does not relieve the obstruction.

4th. The actual danger in the operation is far from inconsiderable.—*Am. Jour. of Med. Sci.*, April, 1883.

Liquor Ergotæ in the Radical Cure of Hydrocele.—J. E. W. WALKER, M. R. C. S. E., writes:—"In bringing this matter before the profession, I feel bound to admit that, but for a curious accidental circumstance, the agent might never have presented itself to my notice. In the year 1875, I proposed to operate upon a patient, aged 65, for the radical cure of a hydrocele of the tunica vaginalis. The disease had existed for about ten years, and had been repeatedly emptied by other surgeons. At this time I removed, by the trocar and cannula, about twelve ounces of serum, and, by accident, took from my pocket a bottle containing about two drachms of liquor ergotæ (Battey) in the place of the same quantity of tincture of iodine, which it was my intention to throw into the cavity. On my return home, I discovered the mistake, and watched the patient for some hours at intervals. No inflammatory state occurred, and there was entire absence of pain, so that I allowed my patient to return to his ordinary occupation the next morning. To the present time there has been no return of the abnormal secretion. I have since, on two occasions, used the same plan with perfect success, and I attribute the cure to a specific action, exerted by ergot which re-establishes the balance between secretion and absorption."—*Brit. Med. Jour.*, March 17, 1883.

Trigeminal Neuralgia relieved by Ligation of the Common Carotid Artery and Neurectomy.—DR. FERDINAND H. GROSS gives a condensed clinical history, extending over nine years, of a case of this disease, with an account of the various remedial measures undertaken for its relief. The result of the operative treatment may be summarized as follows:

1. The effect of the ligation of the common carotid artery was immediate relief in the domain of the first and second divisions of the trigeminal nerve; the period of immunity from pain in the second division being fully two years, while in the first division the pain has never returned, the relief there being probably permanent, and can only be accredited to the

carotid ligation. The effect of this operation upon the third division of the nerve was too transient to count for anything.

It should be added that no impairment of intellect has followed the ligation. After the lapse of nearly two years and a half no disturbance of brain functions has been noticed either by Dr. Gross or the patient, or by any of those who are habitually associated with him.

2. The first neurectomy of the inferior dental nerve, eight months later, resulted in a period of relief from the neuralgia of about one year and three months—to remain within safe limits.

3. The last two operations, viz., the neurectomy of the superior maxillary and the repetition of the operation upon the inferior dental nerve, were performed within two months of each other, September 14th and November 11th, respectively, and may be considered together. The result thus far is entirely satisfactory, the patient being now, three months later, completely relieved of the neuralgia.—*Am. Jour. of Med. Sci.*, April, 1883.

Collodion Dressing in Orchitis.—DR. W. C. BOTELER emphatically recommends the application of collodion in cases of orchitis [epididymitis (?)]. He usually applies adhesive straps and then covers the whole with collodion, using about an ounce in each case, and applying it uniformly and smoothly with the hand, protected with sweet oil to prevent the collodion from sticking to it. He claims very satisfactory results from the uniform pressure and suspension thus secured. He regards this treatment as most effective probably in chronic cases.—*Kas. and Mo. Valley Med. Index*, Feb., 1883.

Larvæ of the Screw Worm.—J. B. BRITTON reports the case of a patient who had suffered from ozena for a long time, and in whom serious symptoms (possibly fatal) were caused by the deposit of eggs upon the diseased mucous membrane by a fly and the development of the larvæ. Two hundred and twenty-seven of the larvæ, screw worms they are called, were counted as they dropped from the nostrils. The patient died about a week after the first aggravated symptoms were observed, four days after the last of the worms appeared; but as his general

condition was very bad, and had been for a long time, there was some doubt how much effect the worms had in bringing about the fatal result. He says that he learns from friends in Texas, that this same fly causes much trouble to the stock men of that state, by depositing its ova upon any abrasions or sores upon the bodies of the cattle. The ova hatch quickly, and the larvæ burrow in the muscles and subcutaneous tissues, causing much distress and killing many cattle.—*Kas. and Mo. Valley Index*, March, 1883.

Nasal Calculus.—DR. R. D. CLARK presented to the Medical Society of the County of Albany a specimen of nasal calculus which he had removed from the nose of a boy six years of age. When two years of age the child had snuffed a pea into the left nasal fossa, but this was removed by a surgeon who was then consulted. Two and a half years later the parents noticed a bloody discharge from the same side of the nose. Their physician treated the case unsuccessfully for catarrh. The child was brought to Dr. Clark on account of an injury received by falling with a bean blower in his mouth. At this time the father called his attention also to the trouble in the nose. On examination with the rhinoscope, he found the left nasal fossa nearly occluded with a polypus which he removed by divulsion. On further examination with a probe, he detected what at first seemed to be dead bone, but on attempting to remove it, proved to be a calculus. On section, this was found to consist of a nucleus of cork with a calcareous concretion encrusting it.—*Med. Annals*, Feb., 1883.

Improved Method of Circumcision.—NEIL MACLEOD suggests a change in the method of performing circumcision. He dilates the orifice in the prepuce with forceps, making also, if necessary, very slight snips with scissors around the margin of the dilated orifice until it will admit of retraction over the glans. Adhesions are broken down by means of a probe passed between the glans and the prepuce. The whole glans having been exposed, the prepuce is then drawn forward again and a clip, formed by tying together two ordinary directors, is slipped over the loose end of the prepuce, marking the amount to be cut off. Three carbolized silk threads are then passed, at

equal intervals, through the prepuce close to the clip on the proximal side, the glans being protected as the needle was passed and the threads long enough each for two sutures. The prepuce in front of the clip is then cut off close, the clip removed, vessels twisted or tied if preferred; the threads are fished up with a blunt hook from the now enlarged preputial slit, cut and tied on each side. The orifice in the mucous layer may then be slit up to the corona, if necessary; but if the clip be so placed as to run in the direction from the meatus to the cornea, this will be unnecessary. Any simple dressing may be used.—*Edin. Med. Jour.*, March, 1883.

Urethro-Vaginal Fistula.—M. VERNEUIL has had occasion within a short time to observe two cases of urethro-vaginal fistula caused by a calculus. The first patient was a woman from Havre, on whom M. Verneuil had operated ten years ago, at the hospital Lariboisiere, for a vesico-vaginal fistula, of which she was perfectly cured. Seven years afterwards she returned to consult M. Verneuil, saying that the fistula was reproduced. On digital examination M. Verneuil was surprised to find on the anterior wall of the vagina a hard prominence, at the site of which there was a urethro-vaginal fistula. The introduction of a stylet showed to him that this hard prominence was nothing else than a calculus. M. Verneuil was proposing to enlarge the fistulous opening by means of an incision, to extract the calculus and afterwards to suture it, when two days later the calculus was spontaneously expelled. It had the size of a large olive, very regular, and terminated in a point. M. Verneuil hoped that this spontaneous perforation would be readily cured by the operation for urethro-vaginal fistula. He sutured it, but had a complete failure. The canal of the urethra was cut in two on a light aluminum Sims' catheter introduced to stay. M. Verneuil made repeated attempts to close the fistula, cutting flaps and renewing the suture. Once he thought that he had accomplished his end, but just when there remained only a trifling, insignificant fistula, a second calculus unfortunately came down and destroyed all. In short, M. Verneuil was forced to send back his patient not cured. She had no urethra, the whole canal having been used up in the various attempts made for the cure of the fistula.

Last year M. Verneuil was consulted by a patient from the environs of Soissons, where she was treated for an affliction, considered incurable, of the womb and genital parts. One physician examined the patient and gave the diagnosis of vesico-vaginal fistula. This fistula had been created by a calculus. On examining it, M. Verneuil saw urine dribbling from the anterior wall of the vagina, and the introduction of a stylet permitted him to determine the presence of the calculus. The vesico-vaginal wall was itself perforated by a point of the calculus. M. Verneuil made a vesico-vaginal section and removed a calculus of the size of a small hen's egg. After having opened the bladder, he attempted to suture it; but the bladder contracted upon itself had no greater capacity than that filled by the volume of the calculus. The suturing failed completely. A second operation failed equally by the difficulty of retaining a permanent catheter in a bladder with walls thickened and rendered indistensible by chronic inflammation. M. Verneuil did not think that these repeated failures, thrice in one patient, twice in another, could be imputed to lack of skill in the operator, for he thought he had acquired some degree of dexterity in the operation for vesico-vaginal fistula. For twenty-five years there had not been a year when he had not had to make this operation, and now he had operated on between 130 and 140 cases.—*L'Union Méd.*, Feb. 13, 1883.

THE INTERVAL BETWEEN MARRIAGE and the birth of the first child is given in over 6,000 cases in a table prepared by Ansell. This gives a mean interval of nearly sixteen months. The majority bore children before the close of the first year, nearly seven-eighths before the close of the second year. In 421 cases the first child was born after three years of married life and before the fourth year was completed, while in the years after the fourth there were only 292, taken all together. From these data and similar results in other tables, Dr. J. Mathews Duncan concludes that married women delaying the commencement of fertility beyond six months are already exhibiting a degree of relative sterility, and that when a married woman remains until the end of the fourth year without conceiving, the probabilities are strong that she will prove absolutely sterile.—*Brit. Med. Jour.*, Mar. 3, 1883.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, March 15th, 1883.—DR. PAPIN, President, in the Chair.

LACERATED CERVIX UTERI.

Dr. Barret.—If the society desires, I will report some cases of operation for lacerated cervix. I believe that with the exception of Dr. Pallen I was the first man who ever operated upon a case of this kind. My first case, I think, was in 1869 or 1870, at the City Hospital, and I have been operating upon these cases from time to time ever since. I operated on a case in North St. Louis some time ago, in which the patient had been confined two years before the time that I first saw her. She then had a chronic cellulitis, and an inflammation that, judging from the history of the case, had existed from the time of her confinement some two years before. When she came to me I found that the neck was lacerated bilaterally down to the vaginal junction on both sides. The pelvic roof was hard and the uterus was immovable, and the os was lying laterally across the pelvis, probably to one side and very much enlarged. This woman complained of disturbance of digestion, constipation, headache, backache, loss of appetite, nausea, and was exceedingly nervous and hysterical. There was no eversion of the lips. I operated in this case without any preparation, and didn't see her after the operation until I took out the sutures. After that she came to the office occasionally, every month or two, and reported herself improving. She was considerably emaciated when I operated. After this I saw nothing more of her until about two months ago—it is now two years and a half since I operated. She came back, and I found that the uterus was perfectly movable and in position. She had gained flesh; all her pains had left her;

her appetite had improved; and I think we may say, as far as her uterine condition is concerned, that she is restored to health. Now this is a case in which the uterus was fixed, and in which I operated during the existence of subacute cellulitis, and in which there was no eversion, and the operation was nevertheless followed by good results. Some six months ago I operated in a case that was somewhat different from the first case. Dr. Gill left this case in my hands when he went to Europe. The woman was suffering with menorrhagia, and the doctor took me down to see the case, expressing the apprehension when he took me down there that the woman was suffering from cancer of the neck of the uterus. I examined her, and saw that it was a laceration, and convinced him of the fact, I believe, before he went away. The woman was bleeding constantly, and was very anemic; her appetite was gone; she was nervous and neuralgic; had backaches, headaches, and general symptoms which characterize these cases. In this case the neck was lacerated bilaterally, and the lips were enormously hypertrophied, and rolled out from the distension of the Nabothian glands: they were so large that when I took a knife, or scarifier, and stuck it into the neck of the uterus, it seemed to be honey-combed or full of spaces, so that as I cut I felt the tissue crackle as the knife went through; and after scarifying, an immense quantity of albuminous, white-of-egg discharge ran out of these distended glands. The body of the uterus in this case was five or six inches deep. The enlargement was principally confined to the neck. I didn't give her much preparatory treatment. I used hot water, and scarified the neck from time to time, opening those glands. This had little influence, in my opinion, in reducing the size of the neck. The hot water did some good perhaps. Perhaps the neck was somewhat smaller when I operated than when I first saw it, but she had improved to no great extent. I scraped out the cavity of the uterus and modified the hemorrhage—in fact that checked the flow of blood; but her menstruation was still excessive. After scraping out the uterus a couple of times, I closed up the laceration of the neck while the glands were distended, and while the neck was perhaps two or three times as large as it would be in its natural condition. The uterus, which was then retroverted, I

put into position and introduced a pessary. I saw the woman some months since, and the appearance of the neck was normal, the cavity of the uterus and the depth of the uterus were normal, her menstruation was normal, and she is relieved.

Dr. McPheeters.—How many children had she had?

Dr. Barret.—Three or four. She has grown children; she is well advanced in life, and this laceration had possibly existed a long time. Another case of a different kind came under my observation about two years ago, at St. Joseph. The patient had been under the treatment of various doctors for a long time. She had a retroverted uterus, and a laceration extending almost, but not quite, to the vaginal junction upon one side; the neck of the uterus was not enlarged, and there was no eversion of the lips; the body of the uterus was enlarged and turned backwards; one of the ovaries was enlarged and tender along the posterior cul-de-sac. She had had iodine and other applications made to the uterus, and pessaries introduced, until she was sick of pessaries and local applications. Of course as soon as a pessary was inserted it impinged against the sore ovary and gave her pain; this made her worse, and the pessary had to be removed: a new one was then put in, and so on, and this had been the woman's experience for a number of years. Now the edges of the laceration were covered with mucous membrane. I could detect a trace of cellulitis on the side corresponding to the laceration; the broad ligament was somewhat tender; the uterus was not quite immovable, and was somewhat drawn to one side, very slightly. I closed the laceration, scraped out the uterus, applied iodine, and reduced the size of the uterus somewhat in this way; and then put in a pessary and kept the uterus in place, and I was enabled to do so without giving her pain. That woman immediately picked up in flesh, strength and spirits, and gained twenty or thirty pounds, I think, in the course of two or three months. She has been well ever since. Now these are a few of a great many cases that I have operated upon, and I have picked them out to illustrate the different classes of cases in which this operation may be performed, the different kinds of cases in which this operation is called for. There seems to be a difference of opinion among practitioners as to whether the operation ought to be performed or not, and there is a wide

difference of opinion as to the classes of cases in which the operation will be useful—and there is altogether a want of explanation as to the cause of the symptoms in these cases. I suggest these questions for the discussion of the society. I have my own opinion in regard to the causation of this trouble, and there is no question in my mind as to the utility of the operation in proper cases.

Dr. Papin.—Would you be kind enough to describe the way in which you operate. I know you are a pupil of Emmet, but I would like to have a statement of your method of operating.

Dr. Barret.—I operate as Emmet does. I put the woman in the left lateral position, and introduce Sims' speculum, simply steady the uterus with an ordinary tenaculum, scarify the edges of the fissure with a pair of scissors, and begin at the bottom of the angle of the wound and stitch it up. I would not think of hitching a vulcellum to the uterus as some men do, nor put the needle into the uterus and draw through a wire and pull the uterus down for the purpose of scarifying it. I think that the uterus ought to be disturbed as little as possible, because there is in almost all of these cases some trace of chronic cellulitis. We rarely find a case which is not complicated by cellulitis, and it is always an important factor: there is always some lingering trace of this cellulitis remaining; and I think when a man hitches something to the uterus, and pulls it down, he runs a risk of reviving the inflammation. I cannot do the operation quite so quickly, nor quite so nicely, but I can do it quickly enough and well enough for any special purpose. It is easier to pull the uterus down, but it is not safe nor scientific. I have never had any hemorrhage in these cases. I bring the parts together and then introduce the sutures. I have never used any but the silver wire sutures.

Dr. Papin.—What has been your experience in these cases as to subsequent pregnancies?

Dr. Barret.—Well, I was trying to think of the number of cases of sterile women I had operated on who had subsequently become pregnant—quite a number—but I can only remember two at this moment; I know there are several more. I know there are instances in which women had been sterile for a number of years, six or eight years, and who became preg-

nant after the operation; so that I think that the closing up of these wounds conduces to conception.

Dr. Papin.—What is the subsequent effect of parturition upon these cases?

Dr. Barret.—Whether they recur or not I cannot say. In one case it has not; of the other cases many of them have passed from under my observation.

Dr. S. G. Moses.—In the last number of the *American Journal of Obstetrics* this matter was under discussion; and Dr. Mundé speaks of a number of cases where this operation has been performed, and the patients have been confined afterwards with no rupture whatever, and no abnormal effects whatever.

Dr. Barret.—I do not see why a rupture should take place. The neck returns to its normal condition after the operation, and it seems to me that such a womb would not be more likely to tear than that in a woman who had never been confined.

Dr. McPheeters.—How many sutures do you put in?

Dr. Barret.—That depends upon the length of the tear—from three to five.

Dr. Papin.—In a double laceration, how far do you sew up the os; to the opening, or clear across?

Dr. Barret.—No, sir; not clear across. I leave an opening large enough to allow menstruation without obstruction. You can close it pretty close, and there will be an opening sufficiently large in my judgment. That has been my experience. In some cases I was afraid that I had closed the cervix up too far and made the opening too narrow, but afterwards I found that I had not. I don't think you can close it too close. I think the suture is liable to tear out. I have under treatment a woman who was operated on in Chicago in which this doesn't seem to be the case, however. The opening is very small, exceedingly small, and she is suffering from dysmenorrhea. I am inclined to think that the dysmenorrhea is caused to a considerable extent by the contraction in this case. This woman has been in a much better condition since the operation than she was before. She has improved in health and has gained flesh.

Dr. Montgomery.—In placing the sutures, do you embrace the whole uterine wall or place them superficially?

Dr. Barret.—I embrace the whole thickness of the wall,

perhaps an eighth of an inch from the edge of the scarified surface. I use silver wire sutures, and the needle that I find most convenient for this operation is the short trocar needle which was suggested by Dr. Hodgen. It is made of an ordinary sewing needle, which you can break to a proper length, and whet the point on a common whetstone. It is cheap, and the best needle that I know of to penetrate a hard substance like the neck of the uterus; it goes through very readily.

Dr. S. G. Moses.—Does the laceration cause abortion?

Dr. Barret.—I think it does cause abortions.

Dr. Papin.—I remember a case that I attended some years ago, in which there is little doubt that abortion was due to the laceration of the cervix, produced in a very rapid labor.

Dr. Engelmann.—In regard to this matter, in cases of double laceration, of having too complete a union after the operation, I have had two instances of that kind. In very large lacerations, where we have to go into the vaginal wall to make the cervix, we are very likely in attempting to make a proper sized uterine canal sometimes to pare a little closely, and in two such instances I have found when ready to remove the sutures—and I may say that I never have any occasion to have the patient meddled with or to examine her before the removal of the sutures—I have in these two instances found that union had taken place completely across. Of course the union at the os at that time is only an agglutination, or at least is comparatively recent, and sometimes a strip of adhesions, and I have in those cases been enabled with a probe to separate the edges and make just the kind of canal that I wished. I may say that I look upon this as rather an advantage, because I was enabled to make the canal of just a suitable size, the ordinary size of the uterine canal, a little larger than to admit the probe, perhaps—I may say an ordinary sized catheter. I think that would be about the satisfactory size for the purpose of exit and ingress. I think that Dr. Barret is perfectly correct with regard to the statement that the condition of the os for labor after the operation is much better than it was before, and that the cicatricial tissue in no way interferes with the succeeding labor, although I must confess I have not observed any delivery in such cases. I don't know what the condition is, but I do know that in my last operations

the union has usually been such that at the following examination, say in four or five days after taking out the stitches, there has not been a sign of the line of union; the only marks that were left were the slight marks of the silk sutures, but no trace of the line of union. The union was so perfect that no cicatricial tissue even at that time showed itself; the transverse lines of the sutures were the only ones left, and judging by that, if at so early a period there were no traces left, I should think there would certainly be no interference from it at a later date. The cervix in this case was enlarged, bleeding, hard—in a sort of cartilaginous condition. Within some two weeks after the operation, it had the appearance of a natural cervix in shape and feel; the swollen, tumefied, enlarged and cartilaginous condition seemed to have disappeared with the same rapidity. In regard to the propriety of operating, I don't think there is any doubt of it. The operation has evidently been overdone, and for that reason is underrated by a great many. There is no one operation that gives such brilliant, such immediate and striking results as this one of Emmet. Undoubtedly you have all seen cases of large lacerations, bilateral lacerations of the cervix, without any symptoms that might be referred to the laceration—in fact without any symptoms whatsoever. It is not every laceration which produces symptoms; and then again there is a catarrhal condition of the uterus accompanying many lacerations, which must be treated in order to have satisfactory results from the closure of the laceration itself. When the catarrhal condition is relieved, we are in a better position to treat the laceration. There are some instances where the nervous symptoms predominate; there are pelvic pains, etc., and after the operation for the laceration they will be relieved; but when a catarrhal condition accompanies it, it must be relieved in order to get satisfactory results from the operation—and this is one of the reasons in my opinion, one of the principal reasons, that there have been cases in which the operation has produced no good results or trifling results. Only one of the conditions has been relieved. I have now under observation a lady who after the birth of her first child began to suffer with very characteristic symptoms, so that when spoken to by the husband in reference to the case I thought at once that we were dealing with a laceration

of the cervix, and such proved to be the case: it was a characteristic large bilateral laceration of the cervix. She suffered intensely with backache and pelvic pains, nervousness, insomnia. It was but two months since the birth of her child, and was getting into the warm weather. For a time she had no treatment, simply going away in the summer, and by fall all the symptoms had disappeared. The laceration of course remained the same, but she felt well and strong. She could walk up stairs and carry her child; she could ride, drive, did not suffer backache, nervousness or pelvic pains, and was healthy and strong notwithstanding this large laceration, which in the first place had given her those characteristic symptoms. The reason I mention this case is because she has since aborted. It was last June that I first saw her, before leaving the city, and she was then in good health. She conceived it seems in January, and has just aborted a male child. This will be in harmony with the opinion before expressed; but she has not suffered any symptoms whatsoever. During the progress of the abortion the laceration looked terrible, and there is no local improvement whatsoever. That is one of those cases which I presume need not be operated upon. Her health is perfect in every way; there is no nervousness nor pains of any kind whatsoever, in spite of the presence of this large laceration. I am watching the case and expect these pains to develop slowly, as I think very often, if the pains do not present themselves at once, or even for six months after the occurrence of the laceration, the pains frequently develop, although there are cases which go on for years without any trouble. Still it is a most satisfactory operation, because of ten patients who are miserable, bedridden and suffering, immediately after the operation get up and say they feel like different persons—the pains have disappeared. All that remains is the soreness due to the operation. I can only repeat that I have seen no other operation which has given such satisfactory, such permanent and such good results; but the operation is certainly not necessary in every instance, and in some cases is absolutely unsuccessful, because the accompanying conditions have not been attended to.

With regard to the sutures: I had long used the silver sutures, but within the last six months, or probably the last

four months, I have used nothing but heavy silk, and I have been better satisfied with it, not that it gives any better results, but because it is much more rapidly manipulated, and less troublesome in removing, and gives at least the same satisfactory result. In using the wire sutures I introduced them all first and then fastened them; whereas as I at present do the operation, using the silk sutures, I tie each suture as it is introduced, and I find it is a great deal more rapid.

Dr. G. A. Moses.—You pull the uterus down?

Dr. Engelmann.—Yes, sir.

Dr. Ford.—I regard this subject as an exceedingly interesting one. It has certainly been so to me during the last six or seven years. In the first place the most important subject in connection with the operation is the indications for the operation. When are we to operate? What do we expect to accomplish? I regard Emmet's operation as one of the most distinctive and important improvements that has been introduced into gynecology since the Sims-Bozeman work on electricity in troubles in the vesico-vaginal system. The indications which are manifest it seems to me are: First, hysteria and general de-nutrition. There can be but little doubt of the fact that laceration of the womb, even when it is not double, when it is unilateral, causes an impairment of the action of the digestive organs. There is very apt to be associated with it an amount of uterine congestion; and it is probable that there will be at the same time a cellulitis, or ovaritis, and these troubles constantly increase in the course of years. Another indication is the presence of mental troubles. These are very distinct in many cases, and I think their occurrence is a positive indication. I have seen cases where there was most marked melancholia. In one case, the wife of a former patient of mine in the country, the lady suffered from continued melancholia of a most profound character. The gentleman wrote to me stating the particulars of the case. I wrote back to have the attending physician examine the uterus, and if he was not then satisfied send the lady to me. She came to me, and on examination I found a double laceration. She was a young woman, about 32 years of age. She had had her last child six years before, and it was during the birth of this child that the laceration occurred. I recognized the melancholia as the result of the laceration.

She was anemic to a considerable extent, and her appetite was inadequate and capricious. After a certain amount of preparation I operated upon her, and sent her home. The attacks of melancholia were less frequent but didn't disappear altogether, and I then suspected that there was something else back of it, probably an abscess of the liver, as she had some history of dysentery, and had complained of pain in the head and right shoulder, and she had undoubtedly been subject to malarial influence. As she visited me again, I passed a needle into the liver in three places, but got nothing. The attacks continue to be less and less frequent, however. It was about three years ago that I operated. She became pregnant and was delivered of a fine boy, and there was not the slightest trace of a laceration afterwards. The boy is now six or seven months old.

Dr. G. A. Moses.—How about the melancholia?

Dr. Ford.—It has almost entirely disappeared. I haven't heard that she has been troubled with it for three or four months, but I can't say that it is altogether gone. There is an element in the determination when to perform Emmet's operation that in my opinion is very important, the danger of the establishment of epithelioma in the cicatrix. I do most undoubtedly believe that epithelioma of the neck of the womb is due to primary laceration. I think we are fully authorized in performing these operations when there are well marked symptoms. It is quite possible that a woman will go a number of years with a unilateral laceration without any very important symptoms; but they certainly do show themselves in the great majority of cases. I would remark that a great deal of care is necessary in the preparation of these subjects for operation. I always take especial pains in preparing them by the use of the douche and other proper treatment.

I think myself that grave mistakes have frequently been made in the diagnosis of these cases, and that many a cervix has been amputated where there was nothing but a benign fungus growth, springing from an everted mucous membrane, the bottom of a laceration, which growths were supposed to be epithelioma of considerable size. I had a case of that character some years ago, in which I was very much at fault at first; in this case there was a laceration. In double laceration

I place the woman upon the side, and operate downwards. I use Bozeman's angular knives and scissors. I begin at one margin of the wound and proceed to the main angle of the laceration. I use the short straight trocar needle, which is undoubtedly the best, and a good needle-holder. I always use silver wire sutures, and I introduce them all before fastening them. I find no difficulty in introducing them in this way—not so much, I should think, as in attempting to fasten them as we go. After I have completed one side I turn the woman over, and proceed to operate on the other side. I use some mild antiseptic wash for the parts for the first five, six or eight days, two or three times a day. My success in these cases has been excellent. The union has been so complete that the line of union disappears. I operated on a case in which, in addition to laceration of the cervix, there was chronic disease of the heart, and hypertrophy of the liver and dropsy. I had tapped her two or three times before without the use of chloroform. I operated in this case on a double laceration with immense success. In one case, also, I operated on a lady over sixty years of age for a laceration of long standing, and for some years associated with constant bleeding. We found the mucous membrane of the cervix enormously everted; there was cystoma, and distension of the uterus. The procedentia was so marked as to bring the cystocele within the margin of the vulva. After proper preparation I united both sides of the large double laceration and got an excellent result. The union was splendid, and there was a shortening of the anterior wall of the vagina and the erectile tissue of the cystocele. There are many cases in which this operation should be done. I don't know that I ever had a case in which there was a marked recent cellulitis or inflammatory trouble present. I should prefer in such cases to wait until by appropriate measures this condition had been relieved before operating. Undoubtedly a great many cases go for a long time seemingly requiring no operation, but in the course of time the symptoms are developed.

Dr. Barret.—I want to say that there is no case of laceration which ought not to be operated upon, and if any gentleman has any reason to urge why it should not, I would like to have it brought out.

Dr. Ford.—I heartily agree with Dr. Barret in that regard. I would operate upon any and every case if I had a chance. My advice always is to operate. We then run no risk. The simpler the laceration is the more easily it is cured.

Dr. G. A. Moses.—The last remark that Dr. Barret made I was very glad to hear. He says he would like to know of any case of laceration that ought not to be operated upon. I have often felt that every laceration ought to be operated upon, but we must define what we mean by a laceration. I suppose there is no case of parturition unaccompanied by some degree of laceration of the cervix. Now, we have been taught that a laceration is not important, and operation is not indicated until it is accompanied by irritation or some pathological symptoms. A slight laceration I don't suppose is what Dr. Barret means.

Dr. Barret.—Yes, I do; I mean any laceration that is appreciable to the examiner when he makes the examination, if there is any laceration with deformity.

Dr. G. A. Moses.—Any deformity; I consent to that. So far as regards the importance of the operation as mentioned by Drs. Engelmann, Barret and Ford I agree with them entirely. I don't see why Dr. Ford should take the trouble to turn the patient from one side to the other, unless as a mere matter of personal convenience in operating. I don't see any advantage in it.

Dr. Ford.—It facilitates the operation a great deal.

Dr. G. A. Moses.—Perhaps it does. I have never made the experiment; I don't see how it can be of any benefit exactly. Dr. Engelmann operates in the dorsal decubitus, I believe. In most of the cases that Dr. Barret mentions the laceration had existed some time and the uterus was more or less fixed; in one case especially. Now Goodell lays considerable stress upon the point that all sensitiveness ought to be gotten rid of before operating. Certainly I think this is correct in the great majority of cases. There are circumstances in which we must operate before this has entirely disappeared; but I think we should endeavor to allay the inflammation, and get the uterus in as nearly a normal condition as possible before operating, and then we should disturb it as little as possible. I think the largest portion of the risk is incurred in violent disturbance of the uterus. The only case in which I have had any trouble,

and I have operated in several very severe cases, was one of those where there was tenderness remaining, although the case had been under treatment some time, and I disliked to operate exceedingly at the time I did. I moved the organ more than usual, though not to any great extent. In that case a violent cellulitis was set up, but the union was perfect so far as the operation was concerned. The inflammation set up threatened the patient's life for some days, so that I am exceedingly careful not only to try and get rid of the sensitiveness of the organ before operating, but to reduce the amount of disturbance during the operation to a minimum.

Dr. Barret.—There was no acute inflammation in my cases. They were long standing cases.

Dr. Gehrung.—If the proposition made by the previous speakers, Drs. Ford and Barret, be true, namely: "that any and every laceration of the cervix should be repaired," then it is a waste of time and labor to study the symptoms indicating an operation. The symptoms so ably described by Dr. Ford may appear, at first sight, to be an unerring guide, when and when not to operate. Every one of these symptoms and all combined may, however, be found present in many cases uncomplicated by lacerations, in women who have never been pregnant and even in virgins. While, as has just been mentioned by Dr. Engelmann, there are cases of extensive laceration with few or no symptoms indicating the presence of such a lesion, or where the symptoms apparently belonging to cervical laceration have disappeared and the patients got well to all appearance without an operation. This fully coincides with my experience. Thus we see that cervical laceration has few or no pathognomonic symptoms, except the finding of the laceration itself, and that the symptoms generally met with in these cases are rather those of the accompanying, consequent or accidental complications.

Deep lacerations, with or without symptoms, with their almost inevitable accompaniment of more or less pelvic cellulitis and sequelæ of the generally consequent subinvolution, should always be repaired, either as a curative or prophylactic means, for it is almost an absolute fact that sooner or later trouble will follow if this is not done. More superficial lacerations should be operated or not, according to the curability by other

and simpler means of the symptoms which they uphold or which accompany them. If this precept is disregarded the operation will frequently prove a failure in regard to its curative effect, as the other means will have to be employed subsequently, as though the operation had not been performed. Sometimes the most trivial laceration may require an operation on account of uterine nervousness, etc., caused by it. If laceration of the cervix uteri is not an inciter of epithelioma, it may at least promote an outburst of the cachexia or invite the latter to this site.

Concerning the question of re-establishment of fertility by this operation, I should conclude from my experience and published statistics that it is not to be considered as more than accidentally successful. In some cases laceration appears to be the cause of enforced sterility or of repeated miscarriages; in others it appears, according to my experience, to be the cause of increased fecundity, without more than an ordinary proportion of miscarriages. The question has frequently arisen in my mind, whether the number of children born by women who have undergone trachelorrhaphy is not in the minority compared with the number of children born by women equally lacerated and who have not been operated upon. Yet this view, if correct, should not deter us from operating, where otherwise found desirable, since the invalid has a greater claim on our assistance than a possible prospective offspring, unless otherwise decided by the person or persons concerned. I operate mostly in the left lateral semi-prone position, with the knife, the short, slightly curved (Emmet's) needle and silver wire.

Dr. Papin.—Have you any statistics on the point about which you have just spoken as to the probability of the operation causing sterility?

Dr. Gehring.—I have no statistics that the operation produces sterility particularly. My opinion is founded more upon the fact that it is rare to have a pregnancy follow the operation. There are very few cases on record. A certain doctor in an article in the *American Journal of Obstetrics* reported that he could find only six or eight cases. Probably there are many more that have not been reported, as it has not been supposed to be such an extraordinary subject, but out of the many hundreds or thousands of operations that have been performed,

eight cases are a very small showing. As I mentioned before, I know a good many cases of extensive laceration where there was almost too much fertility, so that it seems to me that the laceration seems to conduce to some physiological condition which favors conception.

Dr. S. G. Moses.—Didn't these cases abort very readily?

Dr. Gehrung.—No, sir. In most of the cases that I have in my mind now there has never been any tendency to abortion.

Dr. S. G. Moses.—I am sorry that I didn't bring the last number of the *Obstetrical Journal*. This matter was discussed before the Baltimore Obstetrical Society, and the question of the production of sterility by the operation was brought up, and a number of cases are mentioned in which women have become pregnant after the operation, and Goodell, I think it was, said he had operated in some one hundred and seventy-four cases, at least it was over a hundred, and a number of these had become pregnant subsequently. Several others spoke of the cases Goodell had operated on, and whom they delivered after the operation without any trouble whatever. It did not seem to be considered a cause of sterility however.

Dr. Papin.—In my own experience many of those I operated on did not abort. Several of them were undoubtedly sterile before the operation and have borne children since. Out of six decidedly sterile four have since borne children.

Dr. Engelmann.—Objection has been made to the dragging down of the uterus, and I would like to refer to it because to me it is an important point. I look upon that objection as theoretical, and if the gentleman have experienced bad results from it, I don't understand it. I am very sorry for it; but I must say that since I have done that, I find that not only one feature of the method of operating, but I do it in all cases in all operations, and I have done it since last fall; and I never had such success before; and I must say that all those operations have been such as I have referred to. I have not been obliged to use any injections, or to look at them until I removed the stitches, and the patients have been in first-class condition; as, for example, I mentioned one that got up on the third day, and hadn't the slightest trace of trouble from it afterwards, there was a most perfect result, as there was in all the other cases, and not only of simple laceration of the cervix, but in

one instance there was laceration of the cervix with cystocele, and in another there was a laceration of the cervix and rectocele both at the same time. I never use force in pulling the uterus down. I pull it down gently.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting—DR. ENGELMANN in the Chair.

PRESENTATION OF SPECIMENS.

Dr. Todd presented the following specimens from post-mortems made in the Missouri Medical College: Large urethral calculus. There were two fistulous openings in the urethra anterior to the calculus. The bladder was much hypertrophied.—Specimens of small biliary calculi, of which sixty were present in the gall bladder.—Uterus of a negress, exhibiting a subserous fibroid nearly disconnected from the uterus, and illustrating the mode of origin of free fibroids.

Dr. Engelmann was requested to discuss the last specimen.

SUBSEROUS FIBROIDS.

Dr. Engelmann.—This specimen is interesting, as it shows, as *Dr. Todd* has stated, a fibroid springing from the fundus towards the left side, which is almost entirely subserous, and almost entirely free from its connection with the uterus. It is loosely covered by the peritoneum, and where this is removed shows a narrow neck, perhaps the size of a pen-holder, where it is still connected with the uterus; but that would have been severed in the course of time. As the tumor increased in size the neck probably would have become twisted. This tumor could have been removed very readily. There is also an intramural fibroid in the posterior portion of the fundus. It is just one of those cases which is very interesting because it would give the impression of a retroversion. Unquestionably upon digital examination the tumor would have been found in the posterior cul-de-sac, and resting upon the rectum; by the use of the sound alone could it have been diagnosed. The biliary calculi before us remind me of a very

interesting case of calculi, which Dr. Baumgarten saw also, in a very healthy man who had septicemia following an impaction of not more than three or four gall-stones, small calculi imbedded in the walls of the contracted gall-bladder. The amount of pus was trifling, but he had suffered for years before; he finally died from septicemia due to a very small amount of pus, but a few drops surrounding these imbedded calculi.

DIPHTHERIA.

Dr. Todd.—I wish to describe a case that is of interest. Last Friday a girl of 13, pale, thin, and anxious looking, came to the clinic with a very bad throat and some fever. Upon examination I found that the right tonsil was much congested, reaching nearly the median line of the fauces; its whole surface was covered with a pultaceous slough-like mass. It looked very much like a case of diphtheria. As the girl was unmanageable, I did not attempt to raise the suspicious gray mass, according to the well known method for distinguishing between a true diphtheria slough and an adherent exudation of the tonsil itself; the latter being separable from the subjacent mucous membrane, the former not, but leaving a raw surface. Prescribed the usual remedies for simple tonsillitis, and stated to the class that the patient should be closely watched. Next morning the tonsil presented a better appearance, but the other had swollen and had become partially covered with a similar layer. Monday she attended the clinic again, much improved under the simple treatment (pot. chlorat., etc.), the suspicious "sloughs" being reduced to mere traces within the openings of the follicles.

Now, I wish to know if anyone among the gentlemen present has any sure way of distinguishing between such a case of catarrhal tonsillitis and diphtheria, apart from manipulation of the exudation present.

Dr. Scott.—I have seen a good deal of diphtheria within the last few weeks, and it strikes me with regard to the question that the doctor has asked, without giving it any thought, that diphtheria would have a tendency to spread, and that would be evidence of its nature; whereas this tonsillitis would not. That is one point in diagnosis. I have seen several cases of diphtheria and some scarlet fever. I am sorry to say that

both scarlet fever and diphtheria are very fatal at this time, especially among the Germans. It seems that in one part of the city most of the cases of diphtheria are confined to a certain locality, a little valley we might call it, a depression extending along 15th, 16th and 17th streets, from Chambers street to St. Louis Avenue. I have treated several cases in that locality myself, and in the last week or ten days I have treated some scarlet fever there. I have nothing new to offer upon the treatment of diphtheria. As far as the new remedy is concerned, I have had no experience with it. Some gentlemen with whom I have talked have used it, but without any decided benefit. I believe we all know as much about diphtheria as I could tell any gentleman here, and I believe we are about as successful with one plan of treatment as with another; but in the cases which I have had, Mr. President, the plan of treatment which has been most successful in my hands has been that which perhaps would cause a smile of derision from some of the gentlemen; and that is the calomel treatment. I give one-quarter of a grain of calomel, three or four grains of bicarbonate of soda, washing out the throat, where I can do it, with chlorate of potash, tincture of iron and glycerine or simple syrup. This is the treatment with which I have been most successful. I had two cases in the same family two days ago. In the first case I didn't use that remedy; I relied upon iron and quinine, and the little fellow died; in a few days after his little brother was taken with the disease. I gave this little fellow calomel and bicarbonate of soda, washing the throat out with the preparation that I have just mentioned, and he is getting well. I treated some four or five cases on North Market Street in the same way. I treated four children in one family and none of them died. I don't pretend to say that this is a specific; but it is the treatment with which I have been more successful than with any other. I will say that among physicians, especially among our English brethren, there is an impression that membranous croup and diphtheria are synonymous terms. I cannot believe that. I believe we can make a differential diagnosis between them. I think it can be made out sufficiently to satisfy us that they are different diseases. Although there is one point that may not be clearly established in regard to the diag-

nosis, and that is in regard to the microscopical differences between membranous croup and diphtheria, yet in all other respects I believe the differential diagnosis between the two diseases can be readily made out. I regard them as two distinct diseases, and the treatment of the two diseases must be different. The treatment will differ greatly as we regard the disease, as the result of a blood poison which causes the diphtheritic membrane, or as a local disease. As it is expressed by Bumstead in regard to chancre, diphtheritic membrane is, according to my view, "a local manifestation of a constitutional taint." What he says in regard to syphilis, I believe in regard to diphtheria. This little fellow who died of laryngeal diphtheria had a fever, and I was sent for in the morning to see the child; but not being at home I did not get the order until late in the evening, and just as I was going to see him the father came and said that it was useless, as the child only had a little cold and only required a little nursing; that he had some fever in the morning, but that the fever was gone, and he had called to let me know that it was not necessary to see the child. The next night I was sent for, and found that diphtheritic membrane had made its appearance, and the boy had the hoarse croupy cough that accompanies this form of the disease. There have always been, in my experience, some prodromata—some premonitory symptoms which would show that it was blood poison. The blood had already been poisoned before the local manifestations made their appearance upon the throat, and hence in my practice I treat it that way.

Dr. Baumgarten.—I fully agree with Dr. Scott that these diseases are different, and I take it that the existence of a single case of membranous croup which is not diphtheria would prove the point. I remember a case of that kind about two years ago, during the winter. I was called to see a case of what was evidently croup. It had arisen very quickly, and the throat was very sore. I could find no symptoms whatever of membrane. It impressed me at once as being one of those cases which follow croup—an acute laryngitis, which we often find with croupy symptoms—I therefore ordered an emetic, gave sulphate of copper, which attained its result. I directed a repetition of the emetic in case there was a return of the

symptoms. The symptoms abated a little while I was present. About three hours later in the night I was called to see the child, when I myself administered the emetic again. After that the patient vomited two pieces of membrane, one was about as large as the finger nail, of a green color and about as large as the trachea, short on one side and at least an inch long on the other side. After that the child was perfectly relieved. Next morning the child was almost well, and on the second day it was certainly well, and had no more constitutional symptoms. All the symptoms which point towards diphtheria were absent; there was no membrane on the throat, tonsils or uvula. There had been nothing but this affection of the larynx. This child had no constitutional treatment at all. I would like to hear some gentleman explain how we can make a distinction in all cases between an ulceration of the throat in scarlatina and true diphtheria. I know that the diseases will occur together—I know a patient may have diphtheria and scarlatina at the same time, but I believe that most of the ulcerated throat affections we find in scarlatina are not diphtheria; they lead to very much more destruction sometimes. I have seen, at least in one case, the destruction proceed distinctly from the tonsil; and that is more often the case from infiltration of the cervical glands. I have seen one case of which I never heard the parallel. It occurred during the severe epidemic some twelve years ago, in a family where four children were affected, three very seriously, and one died, the first one attacked with scarlet fever. They were small children, the youngest not being more than a year and a half old. All the patients were affected with this breaking down of not only the cervical glands, but the tonsils on both sides; and one of these patients was affected to such an extent and in such a way that by depressing the tongue at one time I could see through from one side to the other. This destruction healed without leaving any injury to the tongue or difficulty in deglutition to speak of.

Dr. Hardaway.—I would like to ask Dr. Baumgarten or Scott whether they have noticed in cases that were undoubtedly membranous croup any of the secondary accidents that we find in diphtheria?

Dr. Baumgarten.—No; but in cases of actual laryngeal diph-

theria which are slight the patient often recovers without them; in these slight cases we find sequelæ, such as paralysis of the throat or of the eye.

Dr. Scott.—I have seen several cases of paralysis following diphtheria, paralysis of the face, of the muscles connected with phonation, also of those connected with deglutition. I have never seen paralysis or sequelæ of any kind following membranous croup, although I have seen a good deal of membranous croup. I have never seen enlargement of the cervical glands in membranous croup, but we always find it more or less in diphtheria. These are points which assist in the diagnosis. Then another thing: membranous croup is never contagious; diphtheria always. No one has ever contracted membranous croup from inhaling the breath or even the particles of membrane from membranous croup; but physicians, nurses and others frequently contract diphtheria. The membrane of diphtheria is inoculable; that of membranous croup is not. I believe these are positive signs in the diagnosis of the two diseases. Membranous croup does not prevail as an epidemic; diphtheria is always epidemic. The membrane in scarlet fever, I believe, does not spread over the fauces, or, perhaps, the nostrils, but in diphtheria it does. When the membrane in diphtheria is detached it always leaves a bleeding surface, showing that not only the mucous but the submucous tissue is involved; it is not so in scarlet fever, I believe.

Dr. G. A. Moses.—I cannot say that I agree with the view that diphtheria and membranous croup are the same disease, and still not a few careful experiments and careful and numerous observations, made by men who are not easily led astray, have led them to think they are. I don't think we can ignore this fact, and put aside positively the questions connected with what we have been in the habit of denominating croup and what we call diphtheria. Every one of the symptoms which the gentlemen have mentioned as differential between the two complaints can be readily set aside. True, in what we call croup we don't have paralysis, but, again, in a large number of cases of diphtheria we don't have paralysis. It is not the rule, although it does frequently occur. We may have laryngeal diphtheria without sequelæ. In diphtheria the exu-

dation may not make its appearance on the fauces at all, or it may spread over the larynx, the bronchial tubes, and even their ramifications. Certainly, as regards the constitutional symptoms, those following cases of so-called membranous croup are as severe as in many cases of diphtheria; the membrane in the larynx when it separates leaves an irritable, bleeding and, perhaps, lacerated surface; there is some mucous and submucous infiltration, quite as well as in diphtheria, and if we remove the exudation there will be more or less hyperemia. Again, the doctor says that croup is never epidemic; diphtheria always or nearly always. I have seen seasons where what we call croup seemed to be epidemic; it was certainly very common—that is compared with its infrequency at other times. Then, again, we frequently see very many cases of what we call pharyngeal and tonsillar diphtheria, without its being epidemic. There have been a good many cases within the last few months, but it cannot be called epidemic. Then there is no difference as regards the treatment. The treatment in cases of laryngeal diphtheria is almost precisely what we make use of in membranous croup—nearly always; it is certainly quite as successful in what we call membranous croup as it is in what we call diphtheria. Both are very fatal. I don't know any disease more to be dreaded.

Dr. Hardaway.—May I ask the doctor if he has ever seen more than one case of membranous croup occurring in one family at the same time?

Dr. G. A. Moses.—I cannot recollect that I have; perhaps not.

Dr. Scott.—Dr. Moses says that we often see diphtheria without sequelæ. So in scarlet fever, we often see cases without sequelæ, but, as a general rule, we do have sequelæ following scarlet fever; we have albuminuria, we have suppuration of the ear, and so on. Because we do not have in one case, it is no reason we should not have it others. As to its being epidemic, we never have seen, as Dr. Hardaway suggested, two cases of membranous croup in the same family; whereas, we often see three, four or five cases of diphtheria at one and the same time.

Dr. Todd.—I would like to inquire if an explanation of the prevalence of the disease in this locality cannot be the con-

dition of the drainage. Is there not a good deal of made-ground—filled up sink-holes and the like?

Dr. Scott.—Some of it is—a great deal of it. A very intelligent gentleman who got me to see a couple of cases of scarlet fever, said to me: "Doctor, you find it this way all over this end of town." We had gone to see a patient who lived in one of a row of houses—four or five houses on the street, and on the alley the same number of houses; and probably six or eight families live in these houses. In the center of this there is a court, and in this court there is a well which is used to supply all the families with water; and fifteen or twenty feet from this are the privies used by all these people. That is the condition of a great deal of this part of the city; and then, of course, in some parts there have been sink-holes filled up, and this ground is, of course, very porous, and if there is anything that is noxious percolating through the ground it would certainly contaminate the water in these wells. And yet I had a case where the patient was a child of very poor parents, who lived in a one-story brick house between twenty-five and thirty years old; you had to step down from the alley into the room; it was a dilapidated, broken-down shanty. The mother of the child was a wash-woman, and the father was a laboring man. This child recovered, while another child died that was surrounded with all that wealth could give.

Dr. G. A. Moses.—Did you treat both alike?

Dr. Scott.—Precisely.

Dr. Todd.—I would like once more to propound the question that I brought up previously. It is in regard to the character of these localities where diphtheria is now prevalent. The reason I ask this is because I have in my mind a chart made by the Board of Health, of New York, and published in its annual report. This city map explains somewhat the epidemics of diphtheria and scarlatina which take place in certain localities; I recollect that it was along the line of water courses and drains. There are a great many springs on Manhattan Island; along these water courses scarlatina and diphtheria were prevalent. I think we cannot be sure that there is no diphtheria without an epidemic. Now suppose we have a case in which there is considerable fever, general ailment of the patient, distressed appearance, and everything indicates considerable prostration. We find one of the tonsils considerably

enlarged, looking thoroughly congested; its surface is largely covered with an ugly pultaceous mass, and looks as if a touch would cause it to bleed. Now suppose we cannot touch this or attempt to remove it, so as to see the character of the surface underneath, I would like to know if there is any other absolute method of determining whether this is diphtheria or merely a catarrhal condition of the tonsil. If there is, I should like to know it. I have been considerably exercised in such cases.

Dr. Schenck.—I might mention a fact, which Dr. Todd may not know, which bears directly upon this matter of the prevalence of diphtheria along the line of water courses: the Health Department of New York were short of a draughtsman, and as it was near the time for making the annual report they sent over to the City Engineer's office, and asked him if he would loan them a draughtsman. He selected one of his employees, and sent to them. They showed him a map that had been drawn of the location of diphtheria in New York. This man said this map had already been drawn, and that it was in the Engineer's office. The Health Department had just made up this map from the disease that was prevailing at the time. The man said he had drawn that map several years before, and insisted upon it. He went and hunted among the records, and pulled down a map of the water courses which corresponded almost exactly with the map the Health Department had made, which shows that the thing was not drawn up from imagination.

Dr. Homan.—Bearing out the specific nature of the disease I remember some experiments that were made by Drs. Wood and Formad, under authority of the National Board of Health, showing that rabbits and guinea-pigs could be inoculated by a piece of membrane. Of course no results followed the inoculation of the tissue and membranes.

Tuesday evening, January 9th, 1883.

MEMBRANA TYMPANI.

Dr. Spencer.—I have a patient here to-night in whom is shown the remarkable reproductive energy of the drum head. I saw this case first in 1873, that is nine years ago, and I re-

ported the case in an article read before the Missouri State Medical Society in 1875. I will briefly refer to the history. At that time this young man was aged fourteen years. He had the measles when he was three years of age, and since that time had had a discharge from the right ear. Afterwards, probably in the latter part of 1874, he began to be attacked with spells of dizziness. He was working at bricklaying, and had to desist from that occupation because of this trouble. Immediately following this he began to have pains and soreness referred to the back of the head on the affected side. At times the pain was unbearable. The attacks of pain increased in severity, and subsequently, while at breakfast, he became unconscious. I was summoned to see him, and found him delirious, crying "Oh, my head!" He had been vomiting freely; and his mother informed me that the discharge from the ear during the past two or three or days had been quite profuse. There was no appearance of trouble externally over the mastoid cells. I ordered an active purgative, and had leeches applied, and on examination found a polypus occupying the meatus. This was removed with the snare, and warm fomentations were applied. The symptoms, however, were so severe that the case seemed to be an incurable one. Dr. Todd saw the case with me in consultation. I will state, without referring further to the history, that subsequently these unpleasant symptoms all subsided, and, after removing the polypus, I made a more careful examination of the middle ear, and found some dead bone. I took hold of this and found that it yielded readily, and by the use of the forceps it was withdrawn, and it proved to be the cochlea—the exfoliated cochlea. That is, in brief, the history of the case. I continued to treat him after that, and the wound healed very kindly, until after a number of months the membrane began to grow. It had been entirely destroyed. There was a mere ring of membrane on the upper portion.

He continued to improve and the drum head was entirely re-formed. I lost sight of him for several years, and only saw him again yesterday. The membrane shows beautifully. Of course it is without the *membrana propria*. It is composed of only the internal mucous layer and the external layer. I have here the specimen which was removed, which can be seen. The long process of the malleus can be very distinctly seen.

Dr. Briggs.—What is the condition of the hearing?

Dr. Spencer.—The cochlea is gone; there is no hearing on that side.

Dr. Todd.—It is very rare that so great a loss of the membrana tympani is made good again. Sometimes it is, indeed, a question whether such extensive restoration is desirable. As stated by Dr. Spencer, in this case the central part of the membrana tympani, the fibrous layer, is absent; only the external integumentary and internal mucous layers are present. It is a weak cicatrix, and sometimes may be seen to bulge out as air is forced into the Eustachian tube, giving rise to pain, and even to a flapping sound, besides lying when released upon the ossicles and interfering with their action.

Dr. Todd presented, on the part of the Missouri Medical College, a liver in early stage of scirrhus degeneration, and a right kidney with two renal arteries, both together equalling in caliber that of the left kidney, the supernumerary arising from the side of the abdominal aorta, just above the bifurcation into the common iliaes.

MISSOURI STATE MEDICAL ASSOCIATION.

The Missouri State Medical Association was convened in the Hall of Representatives of the State House, in Jefferson City, at 3 P. M. Tuesday, May 15th, 1883, with the president, Dr. A. E. Gore, in the chair, and the Secretaries, Drs. C. A. Todd, of St. Louis, and J. H. Duncan, of Columbia, at the desk.

After a sufficient time had been allowed for enrolling members and paying of dues, the meeting was called to order by the president and formally opened with prayer by Rev. W. B. Palmore.

His Excellency, Governor T. T. Crittenden, was then introduced to the association and delivered an address of welcome, in the course of which he took occasion to express the opinion that the code of ethics of the American Medical Association and that association itself will soon pass away, and that the walls of separation between the different medical schools will soon be broken down. In concluding the address the Gover-

nor paid a glowing tribute to the memory of Dr. Hodgen, who died just before the last meeting of the association.

Dr. Gore, the president of the association, made an appropriate response, in the course of which he made a most emphatic protest against the suggestion of the Governor that the code of ethics was to be abolished. The enthusiastic applause of the association indicated hearty approval of the position defined by the president.

A resolution was then offered by Dr. Halley, calling attention to the importance of having a proper fire-proof building erected in Washington for the preservation of the Surgeon-General's Library and the Army Museum, and recommending to Congress the appropriation of \$250,000 for that purpose and \$10,000 annually for the purchase of medical books for the library; and further, that provision be made for the continued publication of the Index-Catalogue. Several of the members spoke in hearty approval of these resolutions. The resolutions were unanimously adopted.

Dr. G. M. Dewey next read a paper entitled, "A Few Remarks with Reference to the Code," in which he took strong grounds in opposition to any increase of liberality. Some of his points were well taken, but the position advanced in opposition to the establishment of a State Board of Health, which should include a representation of homeopaths and eclectics, was simply absurd.

In discussing this paper Dr. Halley spoke of the efficiency of such examinations, as are proposed by the Board of Health, as they are carried on in Canada.

Drs. King, Campbell, Allen and others spoke in defence of the recent legislation in this state.

Dr. Todd, of St. Louis, introduced the following resolution, which was unanimously adopted:

Resolved, That the Missouri State Medical Association do hereby declare that the term allopath, as applied to members of this body, or of any other medical bodies in sympathy with it, is not only false and misleading, and therefore derogatory to the profession, but also mischievous in the extreme, since it implies that the science of medicine is not a unit, but that it is sectarian in nature.

The Treasurer's report was presented and referred to an auditing committee.

At the commencement of the evening session greetings were sent to the State Associations of Nebraska and Illinois, then in session.

Dr. W. H. Ford, of St. Louis, presented a report as chairman of the standing committee on Progress of Genito-Urinary Surgery. It was an ably prepared report and very full. The reading of half the paper having filled an hour and a half, the paper was referred to the publication committee.

Dr. Trader then presented a brief paper on the Use of the Elastic Ligature in Surgery. (Vid. p. 503.)

Dr. Allen presented an oral report of the Committee on Medical Legislation, giving an account of the work done by the committee in securing the adoption of the bills establishing a State Board of Health and to Regulate the Practice of Medicine and Surgery.

Wednesday morning Dr. Lester, of Kansas City, presented the report of the Committee on Progress of Medicine, noting particularly the investigations of Koch and others with regard to the bacillus tuberculosis, to the treatment of typhoid fever by cold baths and otherwise, and to the treatment of rheumatism by the salicyl compounds.

Dr. W. P. King, of Sedalia, spoke emphatically in favor of the use of the cooling bath in typhoid fever.

Dr. Todd, of Kansas City, disagreed with the theory of those who advocate the direct abstraction of heat.

Dr. Dewey condemned the use of large doses of quinine in typhoid fever.

Dr. Allen recommended tincture of digitalis in later stages where heart failure is a danger to be feared.

At this time communications were presented from the Tri-State Medical Society and the Kansas City Medical Society, inviting the appointment of delegates to their next meetings.

Dr. J. W. Brent read a paper on "Force," which, though ably presented, was not discussed, as being rather of general scientific than medical scope.

Dr. S. Pollak read a paper in which he related some personal observations on the use of jequirity in ophthalmia, confirming the experience of others with the same drug.

Dr. Halley, of Kansas City, read an abstract of a more extended paper with reference to the pathology and classification of tumors.

A paper by Dr. E. J. Warth on Spontaneous Evolution was read by title.

Dr. B. F. Wilson, of Salisbury, read a paper on Bacteria, taking the ground that they cannot produce any effect in healthy tissues. This paper was discussed with interest by a number of the members present.

At the afternoon session the first order of business was the address of the president, in which he recounted some of the elements of the progress of medicine, but noted the fact that our art is still too limited in its resources, and that our ability to control disease is only too little. He also called attention to some of the defects of medical education.

Dr. T. J. Norris next presented the report of the Committee on Medical Education, including letters from a number of prominent physicians in this and other states replying to letters of inquiry addressed to them. The report was very long indeed, and while yet unfinished was referred to the Committee on Publication.

An amendment to the by-laws was then proposed and unanimously adopted, limiting the length of reports of special and standing committees to thirty minutes, and of ordinary papers to twenty-five minutes.

An amendment to the by-laws was then offered by Dr. Hurt, by which it is proposed to reduce the annual dues to one dollar, with an initiation fee of three dollars. This was laid over for action at the next annual meeting.

Wednesday evening Dr. E. M. Nelson read a brief sketch of the life and character of Dr. Jno. T. Hodgen, who died just before the last meeting of the association.

Dr. P. V. Schenck read a paper comparing the relative longevity of the male and female sexes, and the comparative insurability of the two sexes. By a thorough study of vital statistics bearing upon the subject he reached the conclusion that female lives are better instead of worse risks for life insurance than are male lives.

By a vote of the association permission was granted to Mrs. De Geer, a representative of the Sons of Temperance, to address the association for five minutes on the subject of temperance, which she did in well chosen language.

Dr. Allen presented report of special committee recom-

mending a change of time of annual meeting from third to second Tuesday of May, so as to allow delegates from this association to attend meeting of the Illinois and Kansas State Medical Associations. The motion was passed, and also provision was made for the appointment of delegates.

Dr. N. W. Harris then presented a paper on Glaucoma, describing his experience with that affection in his own person.

The same subject was more fully discussed in a paper by Dr. T. B. Tiffany, of Kansas City.

Thursday morning, after some routine business, Dr. Allen was called upon for the special report on Alcohol which he was assigned to prepare for presentation at this meeting. A committee was appointed, in accordance with a recommendation of this paper, to investigate and report upon the relations of alcoholism and crime. The committee is Drs. C. H. Hughes, of St. Louis, T. E. Potter, of Cameron, and W. F. Mitchell, of Lancaster.

The following papers were read by title: Injuries to the Head, by Dr. R. F. Brooks, Carthage; Case of Congenital Encephaloma, by Dr. J. H. Duncan, of Columbia.

The special order of the day now being the election of officers, Dr. Tefft, of Springfield, nominated Dr. E. H. Gregory, of St. Louis, as President. This nomination was heartily seconded by several gentlemen, and by vote of the society the present president was instructed to cast the ballot of the society for Dr. E. H. Gregory. The report of the Nominating Committee was then made and approved, resulting in the election of the following officers for the following year: Vice-Presidents, O. A. Williams, M. D., of Morgan county; J. D. Griffith, M. D., of Jackson county; John H. Duncan, M. D., of Boone county; T. J. Norris, M. D., of Macon county; C. H. Hughes, M. D., of St. Louis; Recording Secretaries, A. H. Ohmann-Dusmenil, M. D., St. Louis, and D. V. Wales, M. D., of Jasper county; Corresponding Secretary, N. F. Essig, M. D., of Clinton county; Treasurer, C. A. Thompson, M. D., of Cole county.

Dr. T. F. Prewitt then made a verbal report and presented photographs of a case of rhinoplasty.

The committee to whom had been referred the matter of se-

lecting place for next meeting, and to consider any resolutions that might be offered, reported in favor of Sedalia as the place for meeting. Also reported in favor of a resolution offered by Dr. Hurt, of St. Louis, commending the National Board of Health and urging upon Congress the appropriation of funds necessary for the work of that Board.

Dr. N. M. Baskett then read a paper, *Some Suggestions on Sanitation*, and Dr. Hardaway a paper giving the record of ten years' experience in the use of electricity in dermatology. (Vid. p. 490.)

Dr. T. E. Potter's paper contained reports of several cases showing the value of ergot, ergotin and sclerotic acid in the treatment of enlarged spleen and in fibroids of the uterus.

Report on Gynecology by Dr. Geo. J. Engelmann, of St. Louis, who was not present, was read by title and referred to Committee on Publication.

Dr. C. A. Todd read an abstract of a paper on *Suppurative Disease of the Middle Ear*, reporting experience in the dry, antiseptic treatment.

Dr. W. P. King, of Sedalia, read a paper reporting treatment of several cases of vaginismus.

After a brief discussion it was voted to read by title and refer to the Committee on Publication all papers remaining unread. The following papers were so referred: Report on *Malarial Diseases of Children*, by Dr. J. P. Kingsley, of St. Louis; *Intestinal Obstruction*, by Dr. J. Geiger, of St. Joseph; Report on *R. R. Injuries*, by Dr. F. M. Johnson, of Kansas City.

Appropriate resolutions were then passed of thanks to the citizens of Jefferson City, the committee of arrangements, the railroad companies and the press, and to the retiring president.

In the absence of Dr. Gregory (who had been summoned to St. Louis by a telegram), Dr. O. A. Williams, the first vice-president, was escorted to the chair and welcomed by the retiring president.

The following gentlemen were appointed delegates to the American Medical Association: W. C. Glasgow, M. D., and J. P. Kingsley, M. D., of St. Louis; G. C. Catlett, M. D., St. Joseph; J. W. Jackson, M. D., and J. W. Trader, M. D., Seda-

lia; T. B. Lester, M. D., and E. W. Schauffler, M. D., Kansas City; J. M. Shields, M. D., of Hannibal; B. G. Dysart, M. D., of Paris.

The association then adjourned to convene in Sedalia on the second Tuesday in May, 1884.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION.

The Southeast Missouri Medical Association convened in Fredericktown, Mo., May 1st, 1883, and continued in session until noon, Thursday, May 3d, when it adjourned to meet again in Charleston, Mo., on the first Tuesday in November, 1883. The meeting was an interesting and profitable one, and about twenty-five members were in attendance. The following officers were elected for the ensuing year: President, Dr. J. L. Haw, Farmington, Mo.; Vice-President, Dr. Wm. Nifong, Fredericktown, Mo.; Recording Secretary, Dr. G. W. Vinyard, Longtown, Mo.; Corresponding Secretary, Dr. A. A. Bondurant, Charleston, Mo.; Treasurer, Dr. A. E. Simpson, Charleston, Mo. The following named physicians were received into membership: Drs. L. T. Hall, Potosi, Mo.; G. W. Tarlton, Williamsville, Mo.; C. M. Anthony, Mine La Motte, Mo.; L. J. Villars and J. J. Norwine, Fredericktown, Mo.; G. W. Farrar, Jr., Ironton, Mo.; J. H. Walker, Oak Ridge, Mo.; A. J. McKinney, Marquand, Mo., and C. M. Witmer, Marble Hill, Mo. Reports of the prevailing diseases in their respective counties were read by Drs. G. W. Farrar, Sr., Iron County, O. W. Cline, Perry County, A. E. Simpson, Mississippi County, E. R. Harris, Cape Girardeau County, and G. W. Tarlton, Wayne County. The following papers were read and discussed: "Keratitis," by A. A. Bondurant; "Digitalis, its uses and abuses," by Wm. Nifong; "The Fever Thermometer," by I. H. Bridwell; "Medicinal Springs, etc.," by C. A. Mann. Dr. Mann exhibited a spicula of bone about three-fourths of an inch long, that had accidentally found its way into the trachea, and was supposed to have been lodged about the bifurcation of the bronchi, where it remained for a period of seven days, when it was expelled during a fit of coughing. Dr. Nifong exhibited a calculus

supposed to have formed in the bronchus, that was ejected during a severe paroxysm of coughing. The patient, a barber by trade, for the period of about one year previous to the expulsion of the stone was supposed to have been suffering with phthisis pulmonalis, he never having been examined by a physician. He was afflicted with a distressing cough, and during one of these paroxysms of coughing he fell upon the floor in a kind of semi-asphyxiated condition; he struggled and coughed and threw up the calculus, after which he steadily improved and regained his health. Dr. Nifong was fortunately present when the calculus was ejected and secured it for the Association. Dr. R. T. Henderson related the history of a case in which a grape stem had passed into the trachea, producing periodical spells of croup cough. The doctor having no history of foreign body in the air passages did not suspect it until the body was ejected eight days afterwards. Dr. G. W. Farrar, Jr., had a little patient that suffered in a similar manner, the cause being a bit of egg shell that had passed into the wind-pipe and was expelled twelve days afterward. Both patients made good recoveries. Dr. Wm. Goff exhibited a tapeworm nineteen feet long, and Dr. Nifong presented a patient suffering with sarcoma. The following named physicians were elected delegates to the Missouri State Medical Association: Drs. J. L. Haw, G. W. Farrar, Sr., L. T. Hall, Wm. Nifong, C. A. Mann, A. E. Simpson and Wm. F. Grinstead. The following named gentlemen were chosen delegates to the American Medical Association: Drs. J. W. Cannon, J. H. Rider and A. A. Bondurant.

The President, R. T. Henderson, delivered an address, reviewing the history of the Southeast Medical Association and the profession from an early date. Hon. B. B. Cahoon delivered a pleasing address, sparkling with many fine gems of thought.

THE WISEST PRACTITIONER is he who, giving due weight to all items of knowledge acquired in regard to a disease or an unnatural condition, sets limits to his faith or his expectations, and scrutinizes the evidence on which a treatment is based, and this all the more severely if a certain result of the treatment is gain to himself.—J. Matthews Duncan in *Gulstonian lectures*.—*Brit. Med. Jour.*, Apr. 21, '83.

FOREIGN CORRESPONDENCE.

OVARIOTOMIES — GOITRE — CHRONIC ULCERS — METHODS OF
THE METROPOLITAN DOCTOR—MISTAKEN
PHILANTHROPY.

MR. EDITOR:—The following communication received by me a fortnight since may interest your readers :

APRIL 12, 1883.

DEAR SIR:—I have received a copy of the ST. LOUIS COURIER OF MEDICINE, March, 1883, and I find at page 280, in your London Letter, the following pertinent remark on the relative success of antiseptic and non-antiseptic ovariotomy at the Samaritan Hospital :

“The annual report of the institution will be interesting, as showing between the two operators the comparative merits of the carbolic spray.”

Such a Report was made in 1882 of results in 1881, and was said to be unfair, as giving results for only one year. You will find the figures in the *Medical Times and Gazette*, May 20, 1882. I will, however, give you the figures for three years and a quarter, i. e., for the whole time during which the antiseptic and non-antiseptic (so-called “cleanly and careful”) have been working side by side in the same Hospital :

In 1880 there were 94 ovariotomies, with 9 deaths ; I did 54, with 4 deaths. The balance were the non-antiseptic.

In 1881 there were 84 ovariotomies, with 10 deaths ; I did 41, with 2 deaths. Mr. Meredith, 9, with no deaths—antiseptic. The balance were the non-antiseptic.

In 1882 there were 82 ovariotomies, with 8 deaths ; I again did 41, with 2 deaths. Mr. Meredith, 13, with 2 deaths—antiseptic. The balance were the non-antiseptic.

This year, so far, I have done 11 without a death ; Mr. Meredith, 1 without a death ; Mr. Doran, 1 without a death. There have been three deaths in a smaller number of non-antiseptic cases.

Total results for three and a quarter years :

ANTISEPTIC OVARIOTOMIES—171 with 10 deaths ; per cent., 5.85. (Or my own separate results for three and a quarter years, 147 with 8 deaths ; per cent., 5.65.)

NON-ANTISEPTIC OVARIOTOMIES—114 with 20 deaths; per cent., 17.54.

I think this answers the question as to care and cleanliness with spray and care and cleanliness without spray pretty conclusively.

Believe me,

Truly yours,

I. KNOWSLEY THORNTON.

"One robin does not make a spring," so the statistics of one hospital will not settle the mooted question, nor will the experience of one operator for a series of years with, and another series without Listerism, determine the point. Probably the combined experience of all ovariologists, both in hospital and private practice, would. At present, the question is *sub judice*. Interesting articles on this subject have appeared in the *Lancet*, from both Tait and Savage. I might remark that Mr. Bantock is having most successful results in his numerous hysterectomies.

The medical schools are having their usual spring vacation—a respite from the work of winter, with its much fog, greatly enjoyed by both student and professor in the bright spring sunshine. Lectures will commence again now in a few days, meanwhile the various examinations are in progress at the respective colleges of physicians and surgeons.

I saw Mr. Lister employ a novel method of treatment for the cure of a goitre, in a young man. The tumor was large, growing rapidly, and caused dyspnea and other disagreeable symptoms. In the middle line in front the skin and overlying tissues were divided with the knife; after the hemorrhage was arrested, the exposed capsule of the gland was burnt through with a Paquelin's cautery, at a low or red heat, to prevent bleeding. This was tedious, but being accomplished, the cautery, at a high heat, was passed freely through the common opening into the lateral lobes, care being taken not to burn through the walls of the tumor. Dressed antiseptically, and inflammation and suppuration expected. Three weeks later I learned that the tumor had quite disappeared on one side, and that a slight discharge continued from the opposite. The difficult point in the operation is to get once through the walls of the tumor without bleeding, as it is in them that the vessels are numerous.

Speaking of goitre, an interesting case was reported to me by Dr. Whistler, of the Hospital for Diseases of the Throat and Chest, Golden Square. A man, aged 50, had been suffering from a cervical tumor for eighteen years. Its development, which was sudden, had been preceded by symptoms of deranged cerebral circulation. When first seen by the doctor, the tumor occupied the region of the thyroid gland, measuring vertically $4\frac{1}{2}$ inches; laterally, $6\frac{1}{2}$ inches; girth of neck over most prominent portion, $17\frac{1}{2}$ inches. The tumor was firm to the touch, though elastic in most central portion. Patient suffered from sense of fullness in the head, flushing of the face, occasional dizziness, ringing in the ears, and dyspnea on exertion. No abnormal cardiac signs. The tumor was tapped with a full-sized trocar and cannula. Five ounces of light brown, thick fluid were drawn off, the cyst syringed out with warm water, and three drams of a saturated solution of tannin were injected and retained by plugging the cannula. This was allowed to remain three days and was followed by considerable inflammation of the parts. The cyst was washed out with a 1 to 40 solution of carbolic acid and a poultice applied. Salicylate of soda was given internally. This treatment was continued several weeks—a tube being retained and the discharge of pus continuing. On one occasion, after severe local and general symptoms, a large slough came away and much discharge, after which he improved rapidly. At the end of five months there remained only a slight scar, no trace of goitre; circumference of neck, $14\frac{3}{8}$ inches. He remains well up to the present time.

Chronic ulcers of the leg are successfully treated at Westminster Hospital, by Mr. McNamara, with yellow wax. The wax is melted and freely smeared or daubed upon the ulcer, and a little way around, with a piece of lint. I have seen them doing well under this plan.

The habits, ways, daily routine of work of our metropolitan brethren are not greatly different from those prevailing with us. Occasionally is to be seen, the red lamp over the "surgery" door, indicating to the night passer that a physician and medicines are to be found within.

A curious misuse or misapplication, you would think, of the word "surgery." The majority of general practitioners have renounced the old plan of furnishing medicines, and now leave

with the patient a prescription to be sent to the "chemist's shop" for compounding. A plan is adopted by a few which strongly commends itself. Instead of putting up his own drugs, the doctor leaves the prescription with, or sends it to, a neighboring chemist, with whom he has an agreement as to the terms, and it may be as to abbreviations, or signs, who delivers the medicines, not as coming from himself, but from the practitioner. The chemist is a mere agent, his name not appearing. Thus the patient never sees the "R"—could not understand it if he did, and could get no renewal without consulting his physician.

The great amount of free hospital and dispensary work done here so robs the young practitioner of a class of patients that otherwise would fall into his hands, that he, in some instances, resorts to a private dispensary of his own, where, at certain times of the week, he furnishes free services to the poor, which eventually leads to a "practice." The doctors charge less and the druggists about the same as with us. Office ("surgery") consultation, half a crown—sixty cents; house visit, one crown—\$1.20. Consultation with such men as "Sir" Spencer Wells, Sir Wm. Jenner, Mr. Hutchison, possibly \$25. Some consultants much less. Good men will attend an obstetric case and see their women up for \$5, charging possibly for placebo bottles, and thus increasing the fee. No extra for use of forceps. Good monthly nurses can be had (called monthly because they always remain a month) for from ten to fifteen dollars per month.

Of course the matter of fees may be modified by the rank and condition of the patient. At the "West End" charges would necessarily range higher.

The practitioner's morning hours are usually devoted to office work, afternoon to visiting patients. Mode of getting about depends largely upon the income—double team or single brougham, or hansom cab, two wheelers—some owning, others hiring. The latter are handy, convenient and cheap. A friend, physician, tells me he pays \$58 per month for four hours daily use of a single-horse brougham and driver, and considers it cheaper in the total than owning his own. There is a great amount of bicycle riding here—in the road ways, not on the side-walks, the former being sufficiently

excellent to allow of it—but I know of no doctors employing that method of getting about. Rarely does a practitioner drive his own horse. All vehicles are heavily constructed, necessarily, so as to endure the granite pavement and the fast driving. The horses are rather superior, but a crime of omission is constantly perpetrated by neglecting to put toe calks on the forward shoes. Many horses are down daily, and it is painful to witness them slipping on the wood, stone and asphalt pavements.

With all their philanthropy, the English are short-sighted in some things. It is cruelty to omit the toe calk on the one hand, or to use the gag bit on the other. Vivisections are not allowed, except under chloroform, and even with that provision it is soon to be stopped—at least an effort that way is to be made—and yet innocent pigeons are shot down for sport, stags are fatted to chase to death, stray dogs unclaimed are drowned, university men are encouraged to boat-racing, that they may die early of heart disease. Paget (whom I have twice seen, and who is well and a good public speaker—the latter qualification being rare among the medical men) had to go to the Continent to make his experiments on animals. A man, arrested for cruelty to some animal, was released when he put in the plea that he had not done it for “scientific purposes.” There are too many people here with much money, little brains, no occupation and false philanthropy. The compulsory vaccination act, which has worked well, is doubtless soon to be abrogated. The profession is all right, but the people will not be guided by it.

The metropolitan health report for the past week shows a death rate of only 21.6—very well considering the size and crowded condition of London.

A. J. STEELE.

CASTOR OIL AND GLYCERINE.—The addition of glycerine to castor oil notably increases its purgative qualities. The following formula is in use in the hospital of the University of Pennsylvania:

R. Olei ricini, - - - -
 Glycerinæ, - - - - āā f. ʒj
 Ol. menth. pip., - - - - gtt. iij

M. Teaspoonful doses.—*Med. and Surg. Reporter*, Apr. 28.

COMMUNICATIONS.

EDITOR OF COURIER—On receiving your journal to-day, my attention was directed to the communication from Auman's Hill, N. C., commendatory of liq. oxysulph. ferri. My own experience with the preparation, dating as far back as 1872, is the same as that of the gentleman furnishing the COURIER the communication. My attention was called to it by the remarks of Dr. George C. Hodge, in the *Georgia Medical Companion*, who writes as follows: "That our best iron compounds are those having the *red oxide* as their base; and especially is *this* true when our aim is the restoration of impoverished blood. In *this* consists the efficacy of most mineral waters, as well as the advantages of the oxysulphates over many others. The first formula is no *novelty*, but was used by Sylvester sixty years ago. It is:

Liquor Ferri Oxysulp.

R. Crystallized Sulphate Iron,	-	3ijss
Nitric Acid,	- - - - -	3ij
Pure Water,	- - - - -	3iss

Stir well the iron and acid, by constant rubbing in a glass mortar for at least twenty minutes; gradually add the water, and filter through white filtering paper. The result is a clear limpid fluid, which may be given in doses of from five to ten or fifteen drops, twice daily, in a little water or infusion of quassia—is easily prepared, and will be found, for general use, preferable to the muriated tincture of the shops—harmonizes chemically with, and confers solubility on quinine, sulp. magnesia, etc., and may be relied on as one of the very best restoratives for debility and torpor of the liver, following successfully treated cases of hepatitis, miasmatic fevers, in which the biliary organs have suffered. In malarial diseases:

R. Sulph. Quinine,	- - -	grs. xxx
Liq. Oxysulph. Iron,	- - -	3j
Fowler's Sol.,	- - -	3j
Water,	- - - - -	3ij

M. S. A teaspoonful thrice daily, after meals, occasionally adding a small dose of sulph. magnesia to obviate costiveness. The iron and arsenic may be varied to meet the leading indication :

R. Spts. Minderus, - - - ʒij
 Liq. Oxysulph. Iron, - - - 3j

M. This gives a beautiful florid mixture—palatable, and in doses of a teaspoonful or so, thrice a day—not apt to disappoint as a general tonic. The ammonia promotes the action of the iron and imparts to it a decidedly *capillary and renal tendency*. We found the liquor oxysulp. in doses of from three to six minims, with a drachm or two of the liquor ammonia acetat, every three or six hours, a valuable remedial agent in combating the forming stages of tonsillitis, scarlatina, typhoid fever, and the puerperal inflammations. In these affections, I am convinced of the efficacy of this combination as superior to mur. tinct. used in the same way."

There is more of Dr. Hodge's article, but I have "verbatim et literatim" copied more than enough—the italics, capitals and all are given *just* as Dr. Hodge published it.

The principal reason I have for using it, is its cheapness, which is quite a consideration to physicians in the country, who are compelled to keep their own medicines.

J. W. CANNON.

Jackson, Mo., May 9th, 1883.

NOTES AND ITEMS.

THE WEAR AND TEAR OF AMERICAN LIFE.—Herbert Spencer, in a paper on "Social Forces in American Life," says:

Though it seems beyond doubt that the removal of all political and social barriers, and the giving to each man an unimpeded career, must be purely beneficial, yet there is, at first, a considerable set-off from the benefits. Among those who, in older communities, have by laborious lives gained distinction, some may be heard privately to confess that "the

game is not worth the candle," and, when they hear of others who wish to tread in their steps, shake their heads and say, "If they only knew!" Without accepting in full so pessimistic an estimate of success, we must still say that very generally the cost of the candle deducts largely from the gain of game. That which, in these exceptional cases, holds among ourselves, holds more generally in America. An intensified life, which may be summed up as great labor, great profit, great expenditure, has for its concomitant a wear and tear which considerably diminishes in one direction the good gained in another. Added together, the daily strain through many hours and the anxieties occupying many other hours—the occupation of consciousness by feelings that are either indifferent or painful, leaving relatively little time for occupation of it by pleasurable feelings—tends to lower its level more than its level is raised by the gratifications of achievement and the accompanying benefits. So that it may, and in many cases does, result that diminished happiness goes along with increased prosperity. Unquestionably as long as order is fairly maintained, that absence of political and social restraints which gives free scope to the struggles for profit and honor conduces greatly to material advance of the society—develops the industrial arts, extends and improves the business organizations, augments the wealth; but that it raises the value of individual life, as measured by the average state of its feeling, by no means follows. That it will do so eventually is certain; but, that it does so now, seems, to say the least, very doubtful.—*Popular Science Monthly*, Feb., 1883.

CONDENSED MILK AS FOOD.—The French Society of Hygiene sometime ago appointed a committee to examine a memoir, by MM. Pellet and Biard, on the composition and analysis of condensed milk and a discussion of the value of this article as a food for infants and adults. The conclusions as given in the *British Medical Journal* are as follows: 1.—Condensed milk containing sugar, diuted with twice or four times its weight of water, may be considered as an article of food, and in some cases would prove useful. 2.—Artificial milk thus prepared is incontestably inferior to good cow's milk. It is a healthy article of food, but only slightly nutritive.

3.—The directions given in the prospectus are calculated to mislead the public. Condensed milk diluted with from six to ten times its weight of water, cannot be classed as an article of food. 4.—Infants which have been suckled for three or four months may be weaned and fed with good cow's, goat's or ass's milk, not mixed with water, and given in sufficient quantity. Condensed milk containing sugar, diluted with from two to three times its weight of water, may form part of the daily nourishment of such children; but it would certainly be imprudent to use it alone.

DURATION OF LIFE.—By Dr. Farr's English Life-table, the mean duration of life, or mean after-lifetime of males at birth was 39.9 years; whereas by the new table it becomes 41.9, representing an increase of two years, or an addition of five per cent. to the mean duration of the lifetime of males. According to Dr. Farr's life-table the mean duration of life of females was 41.9, whereas the new table makes it 45.3 years, representing the addition of nearly three years and a half, or more than eight per cent. to the average lifetime of all females born.

* * * * * Thus sixty-six per cent. of the increased duration of human life in England is lived at the useful and productive period, and not more than thirty-four per cent. at dependent ages, either of childhood or old age.—*Brit. Med. Jour.*, Apr. 21, '83.

WOMEN WHO BREED do so at an average rate of a child every eighteen months.

RED CROSS SOCIETY.—A branch organization of this celebrated society, which has done such admirable work in the European wars of the last quarter of a century, has just been formed in this city. The object of such an organization in this country is to make arrangements for the systematic provision and distribution of relief for sufferers from any great calamity affecting large communities or areas of country. The necessity for such an organization has been seen repeatedly of late years in the visitations of yellow fever, the devastations caused by cyclones, forest fires, Mississippi floods, etc.

The credit of instituting the St. Louis branch is due to Miss

Dix, who was elected to the office of Secretary. The other officers are Mr. A. M. Leslie, President; Dr. C. A. Todd and Mr. N. O. Nelson, Vice-Presidents; Mr. — Tibbitts, Treasurer. The annual dues were fixed at one dollar. A meeting for completion of organization will shortly be held.

OBITUARY.—JOSEPH K. BARNES, M. D., Surgeon-General of the United States Army (Retired), died in Washington April 5th, at the age of sixty-five years, of Bright's disease of the kidneys. He had served over forty years in the army. He graduated in medicine from the Medical Department of the University of Pennsylvania, and after a few months service in the Blockley Hospital he entered the army, and was appointed an assistant surgeon June 15, 1840. He served in the Florida war and in the Mexican war, and at two different times was assigned to duty at the military academy at West Point. In August, 1856, he was promoted to the rank of surgeon. He was sent to a post upon the Pacific coast, and was on duty there when the civil war commenced. He was recalled to Washington and made medical inspector, with rank of lieutenant-colonel, Feb. 9, 1863. August 10, 1863, he was made inspector-general, with rank as colonel. Aug. 22, 1864, he was appointed surgeon-general, with rank of brigadier-general. At the close of the war he was given the brevet rank of major-general, and last year he was retired in accordance with the law.

Surgeon-General Barnes was neither a writer nor a teacher; but he had remarkable administrative ability, and extraordinary power of estimating and appreciating the abilities of men and of selecting the right men for the execution of special departments of work. He showed notable tact and discretion too in throwing upon the men to whom he assigned special departments of work the entire responsibility of the work, in allowing them full liberty of action, and in giving them all credit due for successful accomplishment. The result of this policy has been the creation of the Army Medical Museum, the establishment of the Library of the Surgeon-General's Office, and the preparation of the Medical and Surgical History of the War, each of which is a result that the whole medical profession may rightly take pride in and rejoice over.

